

SCHOOL ADMINISTRATORS' INSIGHT AND SELF-REFLECTION:
AN EXPLORATION OF THE INFLUENCE OF EXPRESSIVE WRITING AND THE
LUMINASPARK© INVENTORY ON SELF-AWARENESS

by
Lisa Devall-Martin

A dissertation submitted to Johns Hopkins University in conformity with
the requirements for the degree of Doctor of Education

Baltimore, Maryland

July, 2017

© 2017 Lisa Devall-Martin
All Rights Reserved.

ABSTRACT

Research indicates that Ontario educators struggle to meet evolving and increasing professional demands; marking this generation of Ontario educators as emotionally exhausted and tethered to the job by attractive financial and personal benefits (Clark & Antonelli, 2009; Ferguson, Frost, & Hall, 2012; Leithwood, 2006). In the needs assessment data, Ontario middle school teachers' positive and negative affect and work enjoyment-levels supported the literature review examination of teachers' intensified emotional labor and school administrators' limited engagement with staff in the midst of daily challenges. Although Ontario elementary school administrators acknowledge that relationship-building skills are vital to the interpersonally intense school-administrator role, inadequate time-margins were reported for connection, conversation, and coaching of teaching staff (Leithwood & Azah, 2014). The goal of this exploratory mixed-methods intervention was to prioritize psychological well-being through a transformative learning experience to prime elementary school administrators' self-awareness and psychological capital. Two treatments were used: a) the LuminaSpark© personalized psychometric inventory and workshop, and b) six expressive writing experiences. Results indicated that several aspects of both treatments shifted participants' perspectives (King, 2009), and the LuminaSpark© participants reported a positive increase in psychological capital post-intervention. An expanded transformational learning model involving recursive reflective discourse is recommended for future leadership development research to cultivate habits of mind that sustain changed behavior over time.

Keywords: emotional labor, psychological capital, school leadership, self-awareness, self-reflection, transformative learning

JOHNS HOPKINS
School of Education

Dissertation Approval Form

Student: Lisa Devall-Martin

Adviser: Carey Borkoski

Dissertation Title: School Administrators' Insight and Self-reflection: An exploration of the influence of Expressive Writing and the LuminaSpark® Inventory on Self-awareness

Date Approved: Monday June 26, 2017

Required Signatures:

Dissertation Adviser

Carey Borkoski

Committee Member

Christina Harnett, Ph.D.

Committee Member

Christine Eith

Committee Member

[Signature]

Student

The Dissertation Adviser must submit the completed form to the Director(s) of the Doctor of Education Program for inclusion in student's doctoral folder.

Please note any special requirements below.

Committee Chair/Adviser: Dr. Carey Borkoski, EdD, PhD, Assistant Professor

Committee Member: Dr. Christina Barbara Harnett, PhD, MBA, Associate Professor

Committee Member: Dr. Christine Eith, PhD, Assistant Professor

DEDICATION

FOR MY THREE GROWN INSPIRATIONS – Jeremy, Zachary, and Abigail –
and their loving father, my husband, Andrew: without your patience and care,
this dissertation would not have been possible.

ACKNOWLEDGMENTS

TO MY DISSERTATION CHAIR – I am deeply grateful to Dr. Carey Borkoski for her patience, guidance, and encouragement throughout this learning journey. Thanks to her support, I have learned to “trust the process”. TO MY COMMITTEE MEMBERS – Thank you, Dr. Christine Eith and Dr. Christina Harnett, for sharing your time, skills, and expertise in helping me to refine this research. TO MY JHU EdDOC PEERS – As Team A, we joined forces and met each hurdle with laughter, tears, and grit. This ride would have been so different without you. Thank you! TO LUMINA LEARNING© CANADA – Don Marshall, you have been such a gift. Thank you for so freely joining me on this path with all your professionalism and care. TO MY COLLEAGUES – Your generous participation and authentic responses inspired me to “stay the course”. As Margaret Mead wrote, “Never doubt that a small group of thoughtful and committed citizens can change the world; it’s the only thing that ever has”. We change the world through the work we do – every day! Most importantly, TO MY GOD - Thank You for the assurances of love, grace, and guidance – they were tangible - moment by moment at my big wooden desk.

Not that I have already obtained all of this,

Or have already been made perfect:

But I press on to lay hold of that for which Christ Jesus laid hold of me.

Philippians 3:12 [NAS, 1977]

TABLE OF CONTENTS

ABSTRACT	ii
DEDICATION	iv
ACKNOWLEDGMENTS	v
LIST OF TABLES	x
LIST OF FIGURES	xi
EXECUTIVE SUMMARY	1
I. UNDERSTANDING TEACHERS' EMOTIONAL LABOR	
Introduction.....	7
Psychological Well-being.....	7
Emotional Management.....	10
Current Teaching Conditions.....	13
Imposed government reform.....	13
Classroom challenges.....	16
Working conditions.....	18
Summary.....	21
II. EMPIRICAL EXAMINATION OF FACTORS AND CAUSES	
Introduction.....	24
Context of the Study.....	24
Goals and objectives.....	25
Operationalizing primary variables.....	25
Methodology.....	27
Data collection methods.....	27

Sampling.....	28
Data collection tools.....	29
Results summary.....	32
Discussion.....	42
III. INTERVENTION LITERATURE REVIEW	
Introduction.....	46
Theoretcial Framework.....	47
Micro-level: Self-concept.....	48
Macro-level: School ecological model.....	52
Leadership Development: Adult learning theory.....	55
Administrators' Relatedness to Teachers.....	57
Administrators' Relatedness to Self.....	62
Administrators' Reflective Practice.....	66
Summary.....	69
IV. INTERVENTION PROCEDURE AND PROGRAM	
Introduction.....	70
Intervention Design.....	70
Logic Model.....	70
LuminaSpark© Treatment.....	73
Expressive Writing Treatment.....	75
EVALUATION METHODOLOGY DESIGN	
Intervention Evaluation Methodology.....	75
Participant Recruitment.....	76

Evaluation Design.....	79
Research Questions.....	79
Data Collection.....	80
Fidelity of Implementation.....	80
Transformative Perspective.....	84
Measured Outcomes.....	85
Data Sources and Analysis.....	86
Quantitative Data.....	86
Qualitative Data.....	87
Strengths and Limitations of Design.....	88
Sample Distribution and Extraneous Variables.....	89
Validity and Reliability.....	89
Evaluative Summary Matrix.....	91
V. FINDINGS, OUTCOMES, LIMITATIONS, AND DISCUSSION	
Process of implementation.....	94
Preliminary Linguistic Framework.....	100
FINDINGS.....	105
Fidelity of Implementation.....	105
Transformed Perspectives.....	118
OUTCOMES.....	131
Psychological Capital (PsyCap).....	131
Self-reflection and Insight (SRIS).....	135
Psychological Well-being (PWB).....	138

STUDY LIMITATIONS.....	140
DISCUSSION.....	146
Recommendations.....	148
Recursive Reflective Discourse.....	148
Professional Reflective Networks.....	150
Conclusion.....	151
References.....	153
Appendices.....	177
Biography.....	199

LIST OF TABLES

TABLE	PAGE
1.1 Major Sources of Teachers’ Job Dissatisfaction.....	20
1.2 Organizational Conditions and Leadership Practices Contributing to Teacher Anxiety, Stress, and Burnout (2000-06).....	22
2.1 The Six Levels fo Emotional Awareness – Hand-scoring.....	33
2.2 Responses to Engaged Teachers’ Scale (ETS)	37
2.3 ESM - Fixed Sampling PANAS AM and PM Weekly Mean.....	39
2.4 ESM – Weekly Mean – Positive and Negative Affect.....	41
2.5 Collated Data – All Collection Sources – Emotion.....	43
3.1 Knowles’ Eight-process Design Elements of Andragogy (1984)	56
4.1 List of Intervention Elements by Treatment.....	72
4.2 Factor Analysis at 24 Quality Level – LuminaSpark©.....	74
4.3 Evaluation Summary Matrix.....	90
5.1 Sample Gender and Tenure Attributes.....	96
5.2 Word Clouds – Each Expressive Writing Experience – Full Text.....	102
5.3 EW Participants’ Recorded Time and Location.....	108
5.4 Base Rate Word Usage – EW#2 and EW#3.....	123
5.5 Emergent Focus Group Themes.....	125
5.6 Lumina Participants’ Responses to the Transformative Statements.....	128
5.7 EW Participants’ Responses to the Transformative Statements.....	129
5.8 PsyCap Pre-and Post-Intervention Measures – Percentage.....	134

LIST OF FIGURES

FIGURE	PAGE
1.1 Interplay of emotion and cognition.....	9
2.1 Participants’ Emotional Awareness (eLEAS).....	34
2.2 Comparing Emotional Awareness (EA) and Emotional Range (ER)...	35
2.3 eLEAS – Word count by participant.....	35
2.4 Engaged Teachers’ Scales (ETS).....	36
2.5 ESM – Daily and weekly Enjoyment in percentage.....	40
3.1 Proposed self-concept framework.....	51
3.2 Leading Student Achievement (LSA) model.....	53
3.3 An eco-systemic analysis of Emotional Literacy in the school context.....	54
3.4 Number of hours spent by school administrators per week.....	60
4.1 Stakeholder bases of power – Directions of influence diagram.....	78
5.1 The LuminaSpark© Splash.....	97
5.2 Full-text word cloud of 50 Expressive Writing (EW) entries	104
5.3 Full-text word cloud of LuminaSpark© post-workshop.....	104
5.4 EW full-text – personal concerns (LIWC2015).....	109
5.5 LuminaSpark© post-workshop self-reported satisfaction (components)	112
5.6 Post- LuminaSpark© workshop overall satisfaction.....	114
5.7 LuminaSpark© Splash 6X6’ mat.....	116
5.8 Transformative learning model.....	117

5.9	Average values of EW participants' perceived value.....	121
5.10	Average mean values of self-reported degrees of sadness.....	122
5.11	Average values of positive and negative emotion word use.....	123
5.12	EW participants' reported degrees of expressing deep thoughts....	124
5.13	Lumina participants' perceived value of workshop components.....	130
5.14	All participants' average mean values of pre- and post- PsyCap.....	132
5.15	Average mean values of each PsyCap component.....	133
5.16	Pre- and post-questionnaire data for PsyCap, Self-reflection and Insight, and Psychological Well-being.....	136
5.17	Self-reflection and Insight pre- and post-questionnaire results.....	137
5.18	Cross-tabulation of participants' tenure and engagement in self- reflection.....	138
5.19	Psychological Well-being pre- and post-intervention components.....	139
5.20	Phases of first year teachers' attitude towards teaching.....	144
5.21	Both treatment groups moved along the Transformative Learning path	145
5.22	Transformative Learning model with 'stuck' cycles.....	145
5.23	Model of behavior change that indicates the spiral effect of the change process.....	149
5.24	Recursive discourse embedded within the transformative learning model.....	150

Executive Summary

At the heart of Ontario teachers' professional well-being is the discussion of teachers' emotional labor. Although teachers are doing their best to increase student achievement through daily principled care, resulting in both positive and negative affect, Ontario teachers report multiple negative impacts of stress on their daily lives. Several factors influence their ability to teach the way they would like including an accumulation of organizational and leadership factors, increasing role-expectations, and evolving and increasing professional demands including cascading government reforms (Ferguson, Frost, & Hall, 2012; Keltchermans, 2005; Leithwood, 2006).

Background

When it comes to the interplay of emotion and cognition, it is both conscious and non-conscious, and produces somatic experiences that help move emotion into our consciousness. Biological knee-jerk reactions, also referred to as “sudden automatic reflex syndrome”, are identified as socially unacceptable somatic responses (Hochschild, 1979, p. 554). The emotional intensity of the classroom presents unique challenges with teachers monitoring a variety of somatic responses while still creating an environment of principled daily care. From the student that continues to demonstrate non-compliance to the misconduct of socio-emotionally challenged students, teachers face a myriad of situations each day that require management of both personal and collective positive and/or negative affect. In addition, teachers walk into the classroom with an individual level of emotional capacity that is determined by life's personal circumstances. As a result, they may function professionally with an emotional deficit due to emotional struggles with a divorce, an ill child, or health concerns.

The research questions for the needs assessment in this study took a closer look at teachers' emotional capacity; managing both positive and negative affect in conjunction with enjoyment levels. The questions for the self-reporting measured teachers' self-perceived emotions, the levels of those daily emotions, and how the emotion influenced their professional enjoyment and engagement. Using a mixed-methods research approach, online scales (eLEAS; Levels of Emotional Awareness) were used to initially establish participants' emotion base line and, after five-days of experience-sampling method (ESM) data collection, using the Positive Affect and Negative Affect Schedule (PANAS), a survey was completed using Engaged Teachers' Scale (ETS). Three key findings emerged:

- 1) All participants reported fluctuations in positive affect throughout the day based on interactions with others while experiencing consistent levels of negative affect.
- 2) Participants indicated that their averaged enjoyment levels were below 60% more than fifty percent during a five-day workweek.
- 3) Teachers self-reported limited, if any, administrator-teacher connection throughout the five-day data collection period.

The third finding mirrored several studies that expressed concern around Ontario teachers' dwindling morale and need for healthier connections with school administrators.

Problem Statement

Effective leadership, including administrators' leadership of elementary schools, remains an ambiguous concept associated with an extensive body of research literature. Over the past several decades, the school administrator role has intensified and shifted

into a tangled peak of responsibilities that leaves a leader unsure of their impact and focus. Two current studies, focusing on Ontario elementary administrators' workloads, align with the needs assessment findings and indicate that Ontario administrators acknowledge that relationship-building skills are vital to the interpersonally intense school-administrator role. However, in conflict with this belief are the extensive operational demands that typically take up 90% of administrators' time, which leaves scarce time-margins for connection, conversation, and coaching of teaching staff (Leithwood & Azah, 2014). Specifically, administrators identified the need for “reassurances of worth, reliable alliances, and opportunities for professional development and nurturance to carry out the job effectively” (p. 6).

Articulated almost a decade ago, as outlined by Avolio, Gardner, Walumbwa, Luthans, and May (2004), “the unique stressors facing organizations throughout society today call for a new leadership approach aimed at restoring basic confidence, hope, optimism, resiliency, and meaningfulness” (p. 106). This research literature recognizes that authentic leadership; composed of self-awareness, relational transparency, balanced processing, and a strong moral compass, ignites positive emotions including trust, hope, and optimism in their followers. This shifts follower’s work attitudes of job satisfaction and engagement, and followers’ behaviors, including extra effort or withdrawal behaviors. This raised the question, “How do elementary school administrators create the conditions within which teachers' positive affect increases and high quality connections emerge?”

Purpose

The exploratory goal of this mixed-methods intervention was to prioritize psychological well-being through a transformative learning experience to prime administrators' self-awareness and positive psychological capital using two treatments: a) the LuminaSpark© personalized psychometric assessment, and b) six expressive writing experiences.

Study Importance

The importance of this research is three-fold. First, the findings add to the existing literature on educational leadership, school administration, and the interplay of well-being and leadership. Since effective school leadership has received substantial attention during the last couple of decades, research concerning the potential predictors of leader outcomes is relevant. Consequently, this research will add to the literature by further clarifying the changing nature of elementary school leadership. Secondly, this study's findings have implications for school administrators' well-being and human resource management. According to Bass and Riggio (2006), research that addresses personality differences in relation to leadership can help in leader selection, development, and well-being. Thirdly, there exists a critical relationship between teachers and administrators that influences school climate, education reform, and student achievement. The findings of this research will prove useful to school leadership development and human resource personnel in hiring, sustaining, and developing individuals for public elementary school principalship within the district.

Methodology

In this study, administrators were invited by a third party to participate in one of two treatments; a) LuminaSpark© psychometric assessment and workshop, or b) six expressive writing (EW) experiences. Each participant self-reported their psychological capital and well-being, and their self-reflection and insight through a pre-and post-questionnaire. In addition, after the intervention, participants indicated which components in their experience were perceived as transformative: shifted their perspectives. Three research questions were asked to determine a) if the administrative and transformative learning objectives were met adequately, b) what activities were perceived as transformative by participants, and c) was there a difference in administrators' psychological capital, well-being, self-reflection and/or insight?

Regarding fidelity of implementation, the intervention quality and adherence to design was confirmed through post-workshop data that indicated 88% of LuminaSpark© participants were 'extremely satisfied' with their experience. Qualitative responses to post-intervention Focus Group questions indicated that two factors influenced the EW participants; a) quiet time to be introspective and b) the accountability to write. Responses to the second research question indicated that several aspects of both treatments shifted participants' perspectives, however the social engagement embedded in the LuminaSpark© experience shifted participants further along the transformative learning continuum while EW participants got 'stuck' in the critical reflection phase of the transformational process (King, 2009). Regarding outcomes, the small sample size limited the statistical analysis, however, LuminaSpark© participants reported a positive increase in Psychological Capital (PsyCap) between the pre- and post-measures.

Implications

This exploratory study's results point to a desire for further leadership development and accountability, regardless of the tools, using the transformative learning model: Shifting points of view into habits of mind that produces new behavior (Mezirow, 1991). Future research is recommended using recursive reflective discourse to measure the sustainability of individuals' shifted perspectives and new behavior while further building the literature to guide school administrators' authentic leadership development.

Chapter 1: A Review of the Theoretical and Empirical Literature

Despite a school's complicated emotional landscape, and based on the Ontario College of Teachers' ethical standards, teachers are required to establish a caring culture to guide and support students' learning (Froese-Germain, 2014; Hargreaves, 2000; Hattie, 2003; Lasky, 2005). In establishing this daily principled care, teachers' emotional work requires positive and negative affect that influences autonomous motivation, which is a strong predictor of an organization's resilience and performance (Eyal & Roth, 2011; Markos, 2010). The purpose of this literature review is to examine the emotional labor issues impacting elementary teachers' psychological well-being.

Psychological Well-being

Within the 21st century there has been a paradigm shift in the study of human psychological well-being from an examination of the causes and consequences of human suffering, trauma, and unhappiness to a plethora of contemporary self-help books, research, and public bloggers all conveying perspectives on the optimal ingredients for human flourishing (Diener, 2000). Recently, Brown (2012) equated human thriving with *Daring Greatly* and "the courage to be vulnerable, to show up and be seen. To ask for what you need; to talk about how you are feeling; to have the hard conversations" (Brown, 2012, p. 2). Furthermore, today's popular-science literature, TedX talks, YouTube webinars, and the recent development of the life-coaching profession has ignited a global interest in measuring human happiness to determine well-being (Diener, 2000).

Historically, Aristotle (1947) referenced happiness in *Nicomachean Ethics* as the utmost attainable human action beyond pleasure seeking and is only found in honor,

virtue, and contemplation (as cited by Bartlett, & Collins, 2011). However, it was the Ancient Greeks' *eudaemonist* theories that first correlated right actions (ethical virtue) with happiness (Huang, 2010). This extended further to balancing positive and negative affect, which became an index for happiness. This was proposed as translators' debated over the translation of the Greek work 'eudaemonist', whose most accurate interpretation is "human flourishing", and not simply "happiness" (Villieux, Sovet, Jung, & Guilbert, 2016).

Controversially, the evolution of virtue ethics has been met with a number of objections. The predominant one is the self-centeredness objection framed by Western cultural ideals of excessive living and living for one-self (Huang, 2010). Being concerned about the interests of others helps to diminish self-centeredness. Being others-focused is a virtue, however, this creates a deeply philosophical argument in the literature that is beyond the scope of this review.

There are several theories proposed to capture the fundamentals of psychological well-being. For purposes in this research, teachers' psychological well-being is a cognitive-behavioral paradigm, beyond a positive attitude, that involves emotion. Awareness of one's emotional experiences in oneself and in others is an essential emotional-intelligence skill (Goldman, 1995; 2005). When an individual has high emotional awareness, they have access to multifaceted and differentiated emotion-information to facilitate cognition in understanding and managing emotion (Barchard, Bajgar, Leaf, & Lane, 2010).

Recent research emphasizes our fundamentally social nature and the neurobiological systems that are needed to support our human interactions through

decision-making (Immordino-Yang, & Damasio, 2007). In a study of brain-damaged patients, Immordino-Yang and Damasio (2007) confirmed that disturbances in the experience of emotion accounted for poor decision-making, which was not due to a lowered IQ, or a loss of knowledge. This was most evident in the prefrontal-damaged patients, which suggests “hidden emotional processes underlie our apparently rational real-world decision-making and learning” (p. 5). As seen in Figure 1.1, Immordino-Yang and Damasio (2007) created an evidence-based framework built on their findings to convey the neurological connections between emotion and cognition. This diagrams the overlap between emotion and cognition particularly with emotional thought.

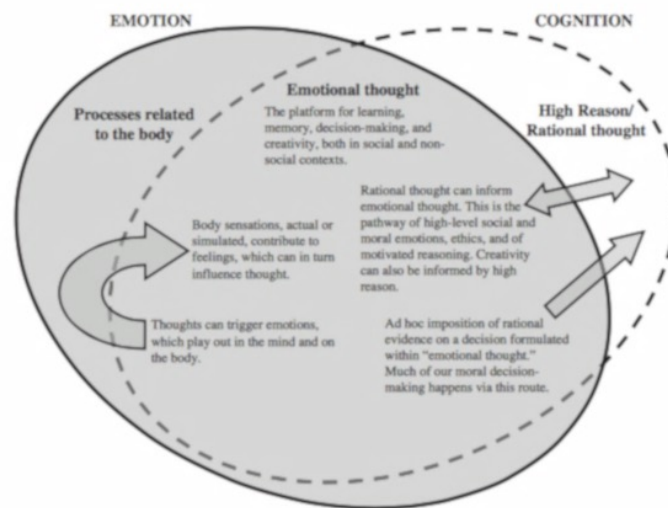


Figure 1.1. Emotion and Cognition. The interplay of emotion and cognition is both conscious and non-conscious, and produces somatic experiences that move emotion into our consciousness (Immordino-Yang & Damasion, 2007).

As mentioned by Immordino-Yang and Damasio (2007), this neurobiological research regarding the integration of emotion and cognition presents the potential for

further research into the emotional management in teaching, the neuroscience of learning, and the role of administrators in the process.

Emotional Management

Understanding the socio-emotional factors embedded in the teaching context brings insight into teachers' emotional expenditures (Cartwright & Holmes, 2006). The contributing factors of teachers' emotional work are examined through three theoretical frameworks: (a) self-determination theory (SDT; Ryan & Deci, 2000), (b) emotional management theory (Hochschild, 1979; Oatley & Jenkins, 1992; Oplatka, 2007), and (c) a theory of emotion and consciousness (EMOCON; Thagard & Aubie, 2008). These theories underpin the needs assessment and operationalize emotion. While the self-determination theory (SDT) establishes the context for the analysis, the other two emotion theories further define the phenomenon of emotion.

Based on Ryan and Deci's (2000) self-determination theory (SDT) there are three fluid components that foster human development: (a) the need for competence – efficient and effective skills, (b) the need for autonomy – being able to act with a sense of choice, and (c) the need for relatedness – being connected to others.

Teachers' psychological well-being, as supported by self-determination theory, takes into consideration the unique socio-emotional factors within the teaching context, and, more specifically, the socio-emotional relatedness necessary to sustain a culture of care. Relatedness, also known as the “need to belong”, was originally acknowledged by Baumeister and Leary (1995) and has multiple influences on cognition and emotion. In fact, the need to belong is a primer of human autonomous motivation (Ryan & Deci, 2000; Stone, Deci, & Ryan, 2009).

Historically, James (1884) and Darwin (1872) established the somatic theory of emotion, also referred to as biological knee-jerk reactions, which refers to socially unacceptable responses (as cited by Palencik, 2007). Hochschild (1979) refers to this theory metaphorically as the “sudden automatic reflex syndrome” of emotion (p. 554). Contrastingly, interactive emotion theory considers the interface of a situation with experience (Folkman & Lazarus, 1985). Folkman and Lazarus (1985) examined this interface in an empirical study, which verified that mankind has the capacity to control emotion.

This marked the introduction of the human ‘self’ as an emotion-manager, further extending the research field to include emotional management theories. Specifically, emotional work can be done on the self, by the self, and by others upon oneself. As outlined by Hochschild (1979), humans set up systems that frame each situation to guide each emotion, which Hochschild calls ‘emotional work’. This is not the action of controlling or covering-up emotion, but the action of attempting to change the quality or amount of an emotion, which may or may not be successful. Emotion is inescapable in every work place, however the required emotional capacity specific to caring-professions, like nursing and teaching, require strong emotional management skills.

Additionally, Oatley and Jenkins (1992) clarify that as humans we assume we can correctly perceive emotions both in others and ourselves, and that feelings surround us in the arts, literature, and conversation. They assert that emotions of one person can pathologically affect others creating a chain reaction effect. Consequently, teachers need significant positive emotional competencies to be consistently and fully engaged within the complex socio-emotional realities of the school culture (Hargreaves, 2001). This level

of emotional aptitude requires emotional awareness and understanding, also referred to as appraisal (Thagard & Aubie, 2008).

Thagard and Aubie's (2008) theory of emotion and consciousness (EMOCON) captures the complexities of conscious emotional experience by not grappling with definitions of feelings, but by focusing on the *intensity*, *valence*, and *change* within the conscious emotional experience. Intensity refers to the degree of arousal, while valence is the positive or negative element of emotion. The component of change with emotion refers to the shifts between emotions over time.

Foundational to EMOCON theory is that people experience a variety of emotions and that many emotions are invoked by perceptual inputs. "A theory of emotional consciousness must therefore explain how we combine our awareness of an object with an associated emotion" (Thagard & Aubie, 2008, p. 812). This theory moves beyond the view that emotions are just perceptions of bodily states. In fact, Rolls (2005) and Feldman-Barrett (2006) found weak correlations with emotions and somatic perception. The components of Thagard and Aubie's (2008) neuro-computational theory include neural affective decision-making, somatic perception, cognitive appraisal, and working memory.

Since there is an established link between consciousness and working memory, and there is reliable evidence linking cognition and emotion (Denzin, 1992), employing an emotional consciousness theory for the study of teachers' perceived daily emotions provides depth and breadth to the research including neuro- and learning-science research, which supports potential adult learning interventions.

Current Teaching Conditions

Theodore Roosevelt said, “Nobody cares how much you know until they know how much you care.” This is the ethical foundation required by educators and outlined by the Ontario College of Teachers’ (OCT). The Ethical Standards for the Teaching Profession in Ontario is four-fold: (a) care, (b) integrity, (c) trust, and (d) respect. As outlined in this literature review, teachers’ current professional conditions are altered by enacted government reforms, relationships with students, and present working conditions that increase emotional labor and thwarts one of the four Ethical Standards for the Teaching Profession: Care. This is most obvious in the findings on imposed government reforms, teachers’ classroom challenges, and evolving working conditions, which have an overall effect on teachers’ emotional labor.

Imposed Government Reform

Substantial variation in educational reform over the past two decades has focused largely on some form of performance-based measurement. In Ontario, through a standardized testing structure, the Equity and Quality Accountability Office (EQAO) was developed, and the Ontario Ministry of Education (OME) curriculum updates continuously rolled out. Despite weak implementation, and sporadic and inadequate professional development, teachers continue to use their own resources to gain understandings of the continuous stream of government reforms (Bailey, 2000; Bascia & Rottmann, 2011). In fact, “these changes, and many others aimed at increasing the accountability of schools, were sweeping in scope, occurred at a very fast pace, and were carried out with very little attention to the advice or preferences of professional educators in the province” (Leithwood, Steinbach, & Jantzi, 2002, p. 97).

Top-down implementation model. Bailey (2000) identified that teachers were being marginalized as a consequence of mandated student-centered learning reform. Specifically, the provincial top-down reform structure suggested that teachers are not doing it right, which directly impacts professional identity. Furthermore, teachers became compliant reform implementers within their professional setting with limited emotional commitment due to the excessive number of reforms and the accompanying implementation issues like limited professional development (Bailey, 2000; Bascia & Rottmann, 2011).

Specifically, and using a qualitative approach, Leithwood, Steinbach, and Jantzi (2002) reported that teachers gauge the professional meaningfulness of a government policy or change. No matter the perception's accuracy, it influenced the emotional work of teachers. Specifically, a shared motivation unifies staff, boosts working conditions, and reinforces professional identity. However, due to provincial short-term and inconsistently supported board-reforms, teachers weathered them and developed skepticism along with negative beliefs toward new initiatives. When teachers were asked, in Leithwood et al.'s study, about the outcomes of policy implementation, approximately 67% of the teachers responded negatively.

Similarly, Schmidt and Datnow (2005) found that if the educational reform undercuts a teacher's values and beliefs then conflicts arise creating ethical dilemmas and generating considerable emotional work. This four-year longitudinal qualitative study on comprehensive school reform (CSR) suggests that reform context and work complexity directly influence teachers' emotional responses. On the one hand, school level reforms generate minimal emotional response while reform that impacts classroom practice

triggers significant emotional reactions from teachers. Central to this negative arousal is the teacher's sense making and the commitment to abandon previous understandings and past experiences to embrace new concepts and repertoires. This process often triggers acute emotions like anxiety and anger (Hargreaves, 1998; Oatley & Jenkins, 1992).

Fully integrated classrooms. Special education provision through fully integrated classrooms is a specific reform that captures the work complexity that directly influences teachers' emotional labor. Lupart and Webber (2012) submitted that the increase in the number of fully-integrated students with special needs, both exceptional and challenged, are now at-risk due to inconsistent change efforts, diminishing funding, and minimal specialized supports. A key obstacle prohibiting this classroom reformation is a "demoralized teaching force" in an attempt to change too quickly (p. 23).

Likewise, Froese-Germain (2014) found that teachers continually reiterated the need to improve supports for special-needs students and to reduce the non-instructional demands that have dramatically increased due to the implementation of the inclusive classroom policy. Special-needs students, both behaviorally and academically, require more expertise, planning, and energy, which directly influences teachers' emotional labor. Questions of sustainability continue to emerge from education professionals who recognize that the necessary supports to optimize student achievement are missing - no matter what the students' exceptionality.

The research indicates that simply returning students to the classroom without changing the education system is not working. Lupart and Webber (2012) report that "traditional school structures of control and competition need to be transformed into conditions of cooperation, collaboration, creativity, and care to meet the expansive

demands for inclusive student learning” (p. 31). In fact, these transformed conditions may change teachers’ emotional labor.

Classroom Challenges

Despite the longstanding contradictions and challenges of imposed government reforms in education, the moral imperative of professional care continues to be identified as ‘what matters’ in the classroom (Hattie, 2003). “It is what teachers know, do, and care about, which is very powerful” and makes up 30% of the learning equation (p. 2).

Relational bonds. Hargreaves’ (1998) empirical study attempts to unravel the underlying ethic of care within the teaching profession by focusing on how teachers feel about their work and how teacher-student emotional connections influence teacher’s attitudes toward educational change regarding structure, pedagogy, and planning. He found that, “Teacher after teacher commented on why their emotional relationships with students mattered for the social outcomes they were trying to achieve and for establishing an appropriate emotional climate in which other kinds of learning could take place, and purposes be fulfilled” (p. 843).

Conceptually, Hargreaves’ (2000) research supports the fact that emotion, cognition, and action are inherently linked, and that teaching is a social and contextual experience. Through Hargreaves’ (2000) qualitative research, elementary teachers were found to have established close emotional ties with their students that they believed to be foundational to their teaching and their students’ learning. This finding supports Lortie’s (1975; 2002) theory of psychic rewards that frames teachers’ value as influenced by student-reciprocated respect, positive regard, or affection. This points to the value of the

student-teacher connection and the unique socio-emotional constructs in teaching that must be considered when examining emotional labor.

Even when student-teacher connections are at the center of a teacher's philosophy of education, maintaining a high level of emotional capacity is challenging. Klusmann, Kunter, Trautwein, Lüdke, and Baumert (2008) further suggested that teachers' positive and negative psychological functioning be considered separately. They found that just because a teacher had a high work motivation level did not mean that there is no evidence of burnout and vice-versa. This study counteracts the belief that teaching is one-dimensional: a quantitative measure of students' cognitive achievement.

Off-task behavior. Parallel to this concern is the identified increase in student off-task behaviour. This reality reflects the Canadian Pediatric Society's (2012) prediction that there will be approximately 50% increase in childhood mental health incidents by 2020. In addition, Froese-Germain and Riel's (2012) verify that nearly 87% of teachers surveyed through the Canadian Teachers' Federation (CTF) have growing concerns regarding mental health issues in the classroom. Again, this raises inquiries around teachers' emotional work. Specifically, almost 70% of teachers indicated that they had yet to receive any professional development in this area of growing need and stress.

Similarly, Wade, Pevalin, and Brannigan (1999) investigated a variety of factors associated with children who have significant anti-social behaviors. Using data from the National Longitudinal Survey of Children and Youth (NLSCY) and a cluster analysis across five dimensions; aggression, hyperactivity, pro-social behavior, emotional difficulties and misconduct, the researchers identified a high-risk group of children who produced high levels of problematic behavior in the classroom. The daily repetition of such student behaviors

generates an increase in emotional work and challenges a teacher's emotional capacity. This contrasts the past several decades of competency-based education (CBE) that dismissed the fact that, "Teaching demands connecting with students and their learning, and the health of that connection is nurtured or jeopardized by the teacher's relationship with her[him]self" (Rodgers & Raider-Roth, 2006, p. 271).

Working Conditions

Teachers' workload, particularly with non-instructional demands, has accumulated and stifled teachers' ethic-of-care motivation (Hargreaves, 2001).

Workload. For purposes of examining teachers' emotional labor, working conditions must be explored. Leithwood (2006), using theory- and action-oriented research methods focused on teacher working conditions and identified eight specific teacher internal states; six affective that capture job satisfaction and morale, and two cognitive, one of which is teacher engagement. Parallel findings resonate in Ferguson, Frost and Hall's (2012) and Clark and Antonelli's (2009) studies, suggesting that teacher workload and student behavior are significant predictors of teacher depression, while employment conditions, in addition to workload, and student behavior, are strong predictors of teacher anxiety. As Clark and Antonelli report, "an excessive bureaucratic demand, tied to the impression of annually increasing demands, requires too much mental and physical energy" (p. 14).

Ferguson, Frost, and Hall (2012) confirm Hargreaves' (1998) findings that workload, with its range of conditions, is one of the four determinants of teacher stress and burnout. However, Leithwood (2006) concludes that there is no single solution to address workload multi-dimensions. It is, therefore, important to isolate the issues that

influence emotional labor including those factors that require greater emotional expenditure.

Role overload. Long-standing contributors to the research on work-life balance in Canada, Higgins and Duxbury (2003; 2012), consider both the organization in which a person is employed and their practiced coping strategies. Most relevant to teachers' emotional labor is what Higgins and Duxbury refer to as 'role overload'. Role overload refers to having too much work to do in a designated amount of time. This terminology captures the working conditions facing teachers with 58% of the sample reporting that they experienced high levels of role overload; an 11% increase within ten years. Embedded in this statistic is the correlation between role overload and emotional expenditures that influence teacher affect.

Administrators' engagement. Teachers' relationship with their school administration is a key component of school climate, and subsequently, satisfaction with administrators' decisions and support is a precursor to teacher job satisfaction (Grayson & Alvarez, 2008; Hepburn and Brown, 2001).

Although Ontario teachers tend to remain in teaching once they obtain a contract, Clark and Antonelli's (2009) survey of retiring and resigning Ontario teachers between 2006-08, found that a leading factor in the respondents' job dissatisfaction was their relationship with administration. As shown in Table 1.1, those who were leaving the board, but not the work force, were motivated by their relational conflict with the administration.

Table 1.1

Major Sources of Teachers' Job Dissatisfaction

Job Dissatisfaction (2006-07 Rank in Brackets)	2007-08		2006-07	
	N	Mean	N	Mean
Relationship with administration (1)	17	3.35	34	3.94
Teaching workload (2)	17	2.12	34	3.09
Assigned duties (4)	17	2.06	34	1.91
Job assignment not in line with qualifications (5)	17	1.29	34	1.35
Class size (3)	17	1.82	34	2.09

Moreover, approximately 25% of the written comments on Clark and Antonelli's (2009) surveys expressed dissatisfaction with the school administration. One respondent wrote, "Leaders must set a good example and not just be friends to students" (p. 15). Specifically, survey participants felt disrespected and unsupported, or felt that administrators lacked proper training and accountability.

Leithwood, Steinbach, and Jantzi (2002) identified administrators as holding less skeptical views of the government's motives with regards to mandatory policy implementation, and "administrators also felt that their capacity was eroded primarily because of the added burdens resulting from the need to bolster teachers' sagging morale" (Leithwood, Steinbach, & Jantzi, 2002, p. 107). Leithwood et al. outline that teachers' dwindling morale is largely due to repeated hostility between teachers and the government while administrators attempt to mediate. Interestingly, over a decade later, this same issue permeates school cultures as collective bargaining processes unfold every two to three years, which usually moves into struck work that triggers interpersonal strain between administrators and teachers, and even teachers with colleagues.

Lack of time. The most up-to-date teacher voice regarding teacher work-life balance is in Froese-Germain's (2014) study. A lack of time continues to be the leading frustration echoed by educators. In fact, teachers across Canada work an average of 50 to 55 hours per week and the top identified priority is reducing class size to reduce teachers' emotional expenditures and to establish work-life balance.

Summary

Teachers' professional emotional capacity isn't static, but has an ebb and flow influenced by personal perceptions regarding the professional landscape that they must navigate (Day, Kington, Stobart, & Sammons, 2006). Recognizing that teachers' lives are multifaceted and that teaching involves important personal investment, researchers Day, Kington, Stobart, and Sammons found that "a significant and ongoing part of being a teacher is the experiencing and management of strong emotions" (p. 610). As seen in Table 1.2, classroom challenges and mounting working conditions each influence teachers' emotional labor and demands further investigation.

Table 1.2

Organizational Conditions and Leadership Practices Contributing to Teacher Anxiety, Stress, and Burnout (2000-06)

Conditions	Number of Studies
<i>Organizational Conditions</i>	
Student misbehavior	7
Work overload (discipline, absence, apathy)	2
Isolation	2
External pressures for change	2
Organizational rigidity	3
Hierarchical administrative structures	2
Role conflict and ambiguity	1
<i>Leadership Practices</i>	
Unreasonable expectations for teachers	4
Inconsistent behavior and expectations	2
Non-participative leadership style/authoritarian	3
Failure to provide adequate instructional resources	2
Lack of follow through	2
Lack of support for staff	2
Favoritism	1
Lack of trust in teachers' professional capacities	1
Poor teacher evaluation	1
Indecisiveness	1

Emotional labor frames teachers' professional well-being and diminishes optimal employee motivation: meaning, impact, autonomy, growth and connection (Maylette & Warner, 2014). One vivid example of motivation disintegration is illustrated through the journey of an Ontario secondary school, in which teachers and administration originally forged a unique territory of creativity and innovation (Fink, 2003). Due to declining enrollment and reductions in government support, teachers' working conditions exploded. The increase of potential full-school closure ignited educator anxiety. Dissolving departmental structures, coupled with diminished district board support, replaced the once optimistic and collegial school atmosphere. Despite student achievement, teacher

apathy grew. Although teachers supported other teachers through the reform debris, Fink reported “there is considerable evidence of passionate professionals reevaluating their lives and work, and seeing teaching as “just a job” (p. 126). Educators try to meet growing expectations enforced through education reforms, which reduce job confidence and influence individual emotional capacity, ultimately impacting teacher professional motivation (Liethwood, 2006).

Chapter 2: Empirical Examination of Factors and Underlying Causes

As outlined in the previous chapter, there are several factors taxing teachers' emotional capacity including imposed government reform, classroom challenges, and workload issues. Similar to physical health considerations, which commonly include indicators like body mass index that provides a baseline to gauge and optimize strength and endurance to meet new physical tasks, teachers' emotional fitness requires emotional awareness to gauge and meet the required emotional labor of the profession (Schutte et al., 1998). As stated previously, researchers have identified the need to further explore the daily emotional work of teaching and its impact on the teachers' daily engagement. Accordingly, this needs assessment measures teachers' emotional self-awareness, the intensity of those emotions, and the congruence or incongruence of those emotions with their perceived professional enjoyment to establish a evidence-based foundation for the intervention design.

Context of Study

The target population for this ambulatory self-report study included middle school teachers. Although not without its own issues, the most empirically sound method for participant selection is the random method, however, this study used systematic sampling (Soriano, 2013).

A single middle school with just over 400 students from Grade 6 to Grade 8 was selected for the needs assessment with a teaching staff consisting of 17 female and 5 male teachers. Socio-economically, the school population consists of the lowest earning income families juxtaposed against old-money wealthy families creating a prevalent economic gap in the school culture.

Goals and Research Objectives

Based on the literature review and the theoretical framework in the previous chapter, teachers' emotional work is directly linked to professional efficacy with positive emotions like love, pleasure and enthusiasm coexisting with negative emotions like anger, guilt, frustration and anxiety. Consequently, important research questions emerge:

RQ1: To what measure are teachers aware of their own emotions: specifically, positive and negative affect?

RQ2: What are teacher's own perceived daily positive and negative emotions (affect)?

RQ3: What impact do these emotions have on self-reported enjoyment?

Moreover, identifying teachers' emotional awareness particularly during the instructional day provides a research opportunity. By using the theoretical framework of emotional theory and management, this needs assessment uniquely contributes to the existing literature on teachers' emotional work through an experience-sampling method by capturing 'in-time' data on teachers' positive and negative affect in correlation with their individual self-reported levels of enjoyment.

Operationalization of Variables

Operationalizing the two primary variables in the needs assessment guides the needs assessment design. First, "What is an emotion?" must be answered, and professional motivation must be defined.

Emotion. When studying emotion, it is essential to recognize its complexity, particularly in definition and societal perspective in order to conceptualize the phenomenon (Schutt, 2015). Social psychologists originating with William James (1884)

struggled with semantics in constructing a definition of emotion, which resulted in abrasive debates about definitions of feelings versus emotions (Sutton & Wheatley, 2003). As a result, abundant definitions are available including folk concepts in which emotions are simply what people ‘say’ they are (Scherer, 2005). In fact, there continues to be suspicion in Western culture that there is something wrong with emotions (Oatley & Jenkins, 1996). When a person is said to be ‘emotional’, the inference can be that they are ‘out of control’ or ‘irrational’, which is linked to Darwin’s (1872) animal-based research and the documentation of infants’ seemingly emotional reactivity. This general societal distrust of emotions was further cultivated by James’ (1884) definition of emotions as ‘inner states’, inferring that they are mysterious and unmanageable (as cited by Sutton & Wheatley, 2003).

Despite different definitions in emotion research, scholars recognize that conceptualizing emotions must be done with a multi-componential perspective (Sutton & Wheatley, 2003). For the purposes of this study, Kelchterman’s (2005) definition of emotion ‘as a fluid state of being that can be influenced by the way people perceive their present situation as it interacts with identity, beliefs, values and sense of competence’ will be used (p. 1005). This is similar to Locke’s (1970) seminal work where he concludes that emotions are central to action and filtered through values and beliefs.

Professional motivation. Exploration of human motivation must include discussion of the human spirit because individuals can reject responsibilities and/or opportunities to grow, which diminishes optimal human experience (Ryan & Deci, 2000). Fundamental to motivation is the psychological component of relatedness, as referenced previously; the need to belong (Baumeister & Leary, 1995).

Methodology

This needs assessment utilized a mixed-methods research approach including a combination of data collection methods involving online scales, experience-sampling method (ESM), and surveys. Qualitative analysis was done through thematic word analysis, while quantitative analysis was completed through descriptive statistical analysis. Qualitative data was used to confirm and further explain quantitative findings. Participants completed three phases of data collection: a) Levels of Emotional Awareness Scale (eLEAS), b) Engaged Teachers' Scale (ETS), and b) experience-sampling method (ESM) using Positive Affect and Negative Affect Schedule (PANAS).

Data Collection Methods

The needs assessment endeavored to accurately reflect teachers' emotional perceptions and awareness in order to determine a point of intervention. The reliability of the needs assessment results directly influences the ultimate measurement of intervention effect (Schutt, 2015). For the needs assessment, and to capture 'in-time' measurements of positive and negative teacher affect, quantitative data was retrieved through the experimental-sampling method (ESM) using prepared electronic iDevices measuring scaled responses over five workdays at both random and fixed times. O'Leary (2014) indicates that analysis of the qualitative data can provide rich insight into the problem being researched. Regarding teachers' perceptions of their own daily positive and negative emotions, an inductive analysis of the contextual data revealed various themes that are not captured within the quantitative data (O'Leary, 2014).

Device Preparation. Nine iPads, owned by the Waterloo District School Board were used, but they were from a different school to further ensure participants were non-

identifiable. The researcher downloaded the Participation in Everyday Life (P.I.E.L.) application after retrieving the special district access code for the Applications store. Then a control file was created with the Engaged Teachers Scale (ETS) and the Positive Affect and Negative Affect Schedule (PANAS) using a Likert scale in Notepad. After consulting with the designers of the application at the University of Sydney to remove glitches, the content file for both the scale and schedule was then downloaded into the P.I.E.L. application on each iPad.

Malfunctions. On the Friday previous to the launch of the ESM, a security block through the district school board was discovered that restricted participants from successfully sending their completed survey samples electronically to the research-designated gmail account. This required a labor-intensive shift, which included downloading data daily in the researcher's home. When revised, the new plan required picking up and dropping off the iPads each day.

Furthermore, the iPad clock alarm was also scheduled to alert the participant(s) to complete the randomized ESM collection in order to ensure completion. Unfortunately, on a few occasions, participants did not touch the correct button to launch the survey and then had to problem-solve to get back to the start of the application, however this did not hinder data collection.

Sampling

Teachers from a senior public school in Cambridge, Ontario (Canada), with the support of the school administration, were invited to participate in the study through broadly distributed personal emails. As a third party, the principal of the school made an announcement and tapped a few teachers on the shoulders to encourage them to

participate. Nine teachers confirmed their participation and signed up for one of two 45-minute orientation meetings.

Although a small sample size ($n = 9$), the experience-sampling method provided multiple responses per participant. Each participant generated three responses per day for five days. Regarding child and youth workers, educational assistants, and administration, they were excluded from the needs assessment data collection. Participants signed the consent and were randomly given a Subject ID that had been purchased by the researcher to be used when completing the eLEAS. Each participant completed the eLEAS during the week of data collection (April 27 to May 1, 2015).

In addition, each participant completed the Engaged Teachers Scale (ETS) the first day of the data-collection week, and six did a second response four days later for comparison purposes.

Participant orientation. During the mandatory orientation session at the school, all participants were introduced to the problem of practice and research design. Some inquired about and received the literature review, the problem of practice factors, and/or articles verifying the reliability of the measurement tools through email. Each participant signed the letter of consent at the orientation after a thorough question and answer period. One teacher was appointed the ‘Keeper of the Technology’, and the iDevices were returned to the office each day for pick-up by the research team.

Data Collection Tools

Levels of Emotional Awareness Scale (eLEAS). Lane, Quinlan, Schwartz, Walker, and Zeitlin’s (1990) research concluded that emotional awareness goes through a cognitive process, but that the development of emotional awareness progresses

independently of cognitive development and at different rates. This awareness was measured using the Levels of Emotional Awareness Scale (LEAS), which consists of two sets of ten open-ended scenarios that involve two ‘actors’: the Self and Other. As indicated in Appendix B, Each respondent answers two questions, a) How would you feel?, and b) How would the other person feel? With the online version, each scenario has separate text boxes for the respondents these two questions. Three stages are involved in scoring the words and phrases to measure participants’ awareness of their own emotions within six levels of awareness, as shown in Table 2.1: 0) Cognition, 1) physical sensations 2) action tendencies 3) single emotions 4) blends of emotions and 5) blends of blends of emotions (Lane et al., 1990). Permission was granted through the University of Arizona to use this tool in the needs assessment. Each participant in this study completed the ten scenarios (10A) of the Levels of Emotional Awareness Scale (LEAS-A) electronically. The online version provides easy implementation and scoring with both spreadsheet and report format downloads available.

There are four scoring methods in the eLEAS: a) emotional awareness (EA), b) emotional range (ER), c) multi-level responses and d) word count (WC). With the EA score, a score from 0-4 is given to each ‘actor’ in the scenario – Self and Other. A total score 0-5 is then generated based on Self and Other scores. A higher responder’s score indicates a higher level of EA. All percentile ranking is based on a pre-established normative database. The ER score in the eLEAS counts the number of unique score-able words used throughout the assessment, which are pre-determined by the LEAS creators, resulting in an assessment-wide measure of emotional complexity. The ER is an

accumulative tertile score, measuring the Self, Other and Total. The WC scoring is a basic count of the number of words used by the participant throughout the assessment.

Experience-Sampling Method (ESM). An experience-sampling method (ESM) is used when researchers want to collect data in a naturally realistic context over time (Bolger, Davis, & Rafaeli, 2003; Piasecki, Hufford, Solhan, & Trull, 2007; Suveg, Payne, Thomassin, & Jacob, 2010). This is especially true when measuring emotion or feeling within the daily life of human beings. The use of the Participation In Everyday Life application (P.I.E.L.) facilitates the ESM and addresses the challenges and validity questions associated with past retrospective pencil and paper measures, after-the-fact interviews, and focus groups (Jessup, Brian, Chen, & Brundy, 2012).

Another significant advantage of the experience-sampling method is the ability to alert or signal the teachers to participate, instead of relying on self-recall (Zirkel, Garcia, & Murphy, 2015). With the alert, there is a greater likelihood of participation and completed entries. Furthermore, the fact that teachers already have an established professional schedule works well with the various scheduling options available with the experience-sampling method. For this study, there were two fixed-response times plus one random-response time within each day of instruction over five days.

Engaged Teachers Scale (ETS). The quantitative ESM data was supported by a quantitative analysis of a brief professional wellbeing protocol called the Engaged Teachers Scale (ETS; Klassen, Yerdelen, & Durksen, 2013). The ETS was modeled after the well-established and reliable Utrecht Work Engagement Scale - UWES (Schaufeli, Bakker, & Salanova, 2006). In addition, Schaufeli and colleagues define work engagement as an affective-cognitive state, which parallels Scherer's (2005)

interpretation of emotion, which was previously mentioned. By using the experience-sampling P.I.E.L. for the execution of the ETS during the orientation session(s), application, as outlined in Appendix C, participants became familiar with how to use it.

Positive Affect and Negative Affect Schedule (PANAS). In order to measure teachers' positive and negative affect while they worked, this researcher used the Positive and Negative Affect Scales (PANAS; Watson, Clark, & Tellegan, 1988), which has a high level of reliability that "can be regarded as providing very accurate estimates of the internal consistency of the PANAS in the general adult population" (Crawford & Henry, 2004, p. 262). Crawford and Henry (2004) determined the reliabilities (internal consistencies) for the positive affect (PA) and the negative affect (NA) scales to be .89 (95% *CI* = 0.88-0.90) for PA scale, and .85 (95% *CI* = 0.84-0.87) for the NA scale (p. 257).

During experience-sampling data collection, teachers completed the PANAS, shown in Appendix D, three times per day on assigned and prepared iPads using the P.I.E.L. application. Participants were alerted to complete the scale at two fixed times (before and after school) plus one randomized time throughout the day. The "Briefly Explain" button allowed participants to share important contextual information throughout the ESM. In addition, an Enjoyment Slider was added at the end of each survey for self-reporting in-time levels.

Results Summary

This section outlines a summary of the key findings regarding teachers' emotional awareness and experiences. This evidenced-based description of the results supports the findings in the literature review and indicates the need for intervention.

RQ1: To what measure are teachers aware of their own emotions?

In a study comparing the LEAS hand-scoring to a computerized scoring across various conditions, Barchard, Bajgar, Leaf, and Lane (2010) found internal consistencies and confirmed that the Program for Open-ended Scoring (POES), which is used in this needs assessment, is reliable and valid. For this study, each participant completed the online Level of Emotional Awareness Scale (eLEAS) to establish a baseline measure of individual emotional awareness. As previously outlined, there are four scoring factors in the eLEAS: a) emotional awareness (EA), b) emotional range (ER), c) multi-level responses (MR), and d) word count (WC). As shown in Table 2.1, a six-level developmental theory of emotion established by Lane and Schwartz (1987) is used to measure the differentiation and integration of emotional experiences with scoring from 0 (no awareness) to 5 (the highest level with combined emotion blends). A participant's high score indicates a high level of EA. All percentile ranking is based on a pre-established normative database.

Table 2.1

The Six Levels of Emotional Awareness in Hand Scoring

Level	Description	Example Response
0	Cognitions	I would expect him to help me.
1	Bodily sensations	I would feel pain.
2	Action tendencies	I would cry.
3	Single emotions	I would feel angry.
4	Blends of emotion	I would feel happy but guilty.
5	Combinations of blends	I would feel sad and frightened. My friend would feel sympathetic and relieved.

In Figure 2.1, the scatter-plot depiction of the EA data indicates that four participants scored above the 80th percentile in their level of EA. Two participants, 109 and 102, scored just above the 70th percentile which Lane et al. (1990) identify as above

the normed average. Two participants scored below the 50th percentile: 108 and 106.

Unfortunately, participant 108 had to leave the study for a family emergency, while 106's

EA score was due to an incomplete assessment.

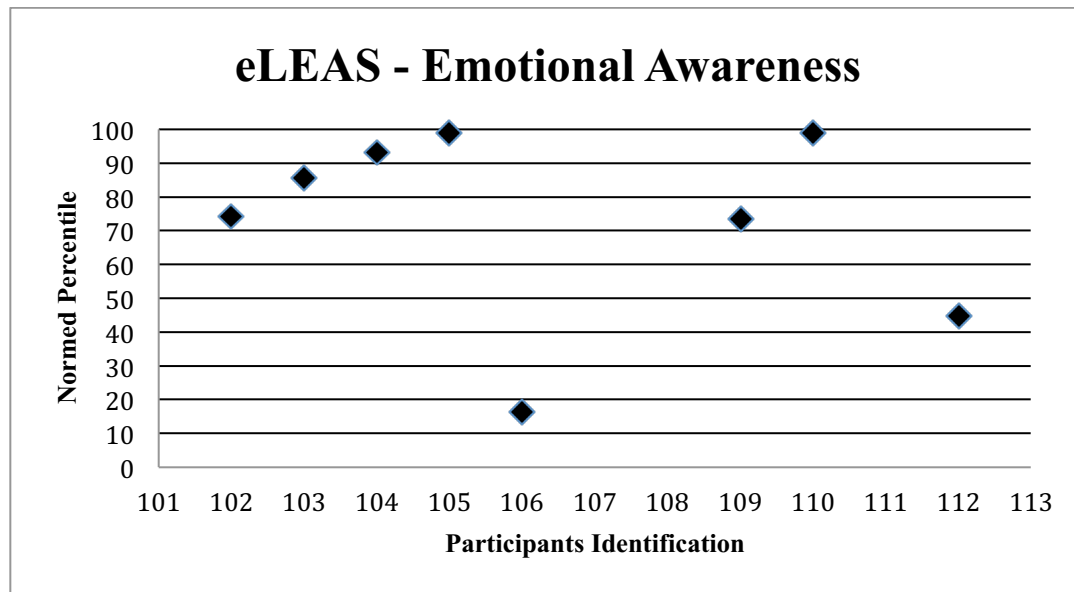


Figure 2.1. Participants' Emotional Awareness (EA). Participant 106, who scored below the 20th percentile in EA because of an incomplete assessment, demonstrates above 60 percentile in ER.

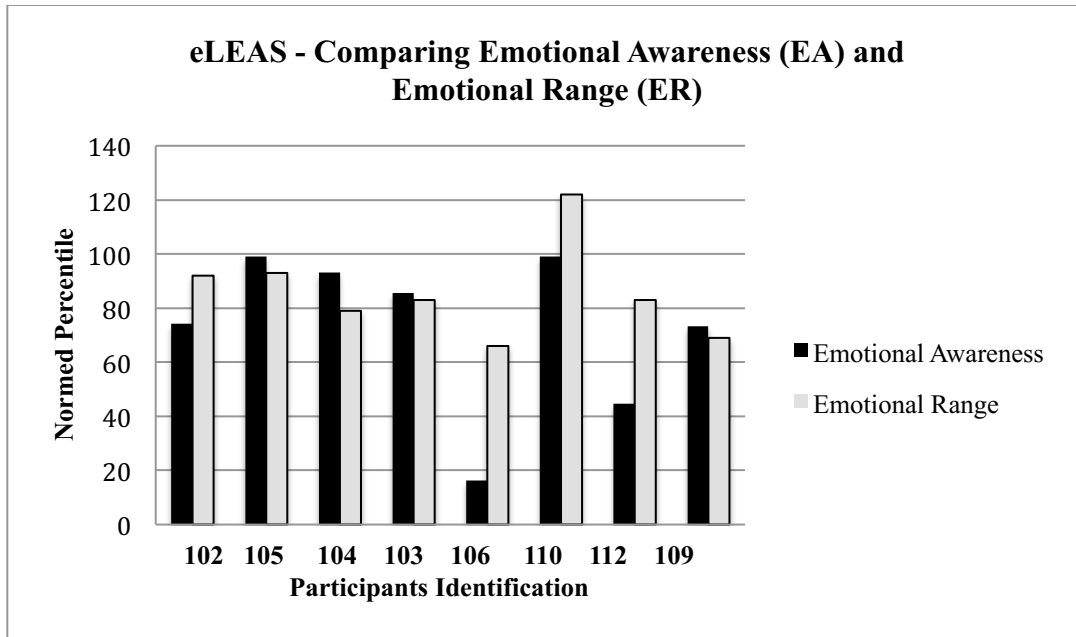


Figure 2.2. Comparing Emotional Awareness (EA) and Emotional Range (ER)

As shown in Figure 2.2, participants 110 and 105 both scored in the 99th percentile for EA, but participant 105 did so using half the number of words (494) as shown in Figure 2.3.

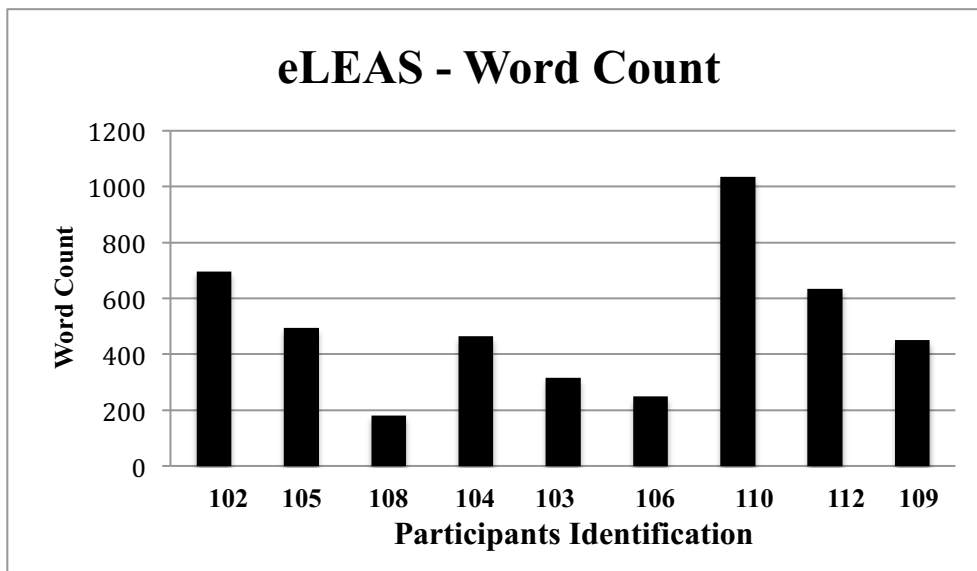


Figure 2.3. eLEAS – Word Count by Participant

Also, participant 106 used the least number of words (249) scoring below the 20th percentile for EA while, in comparison, participant 103, who wrote only 68 more words, scored in the 85.7th percentile. This supports the design validity of the eLEAS in that a greater word count does not generate a higher EA score.

To further establish an EA baseline with the participants of the study, each completed the Engaged Teachers Scale (ETS) which, as stated earlier in this chapter, was specifically designed for the unique conditions associated with teaching while being originally based on the Utrecht Work Engagement Scale (Schaufeli, Bakker, & Salanova, 2006). Using the Likert scale shown in Appendix C, participants responded confidently in all four emotional engagement factors.

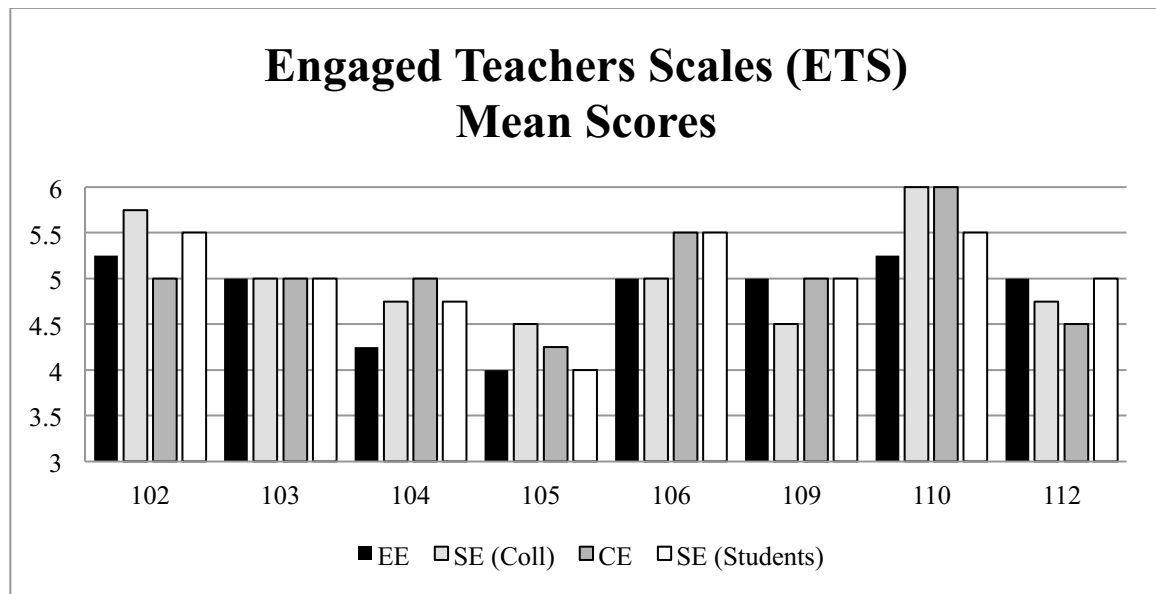


Figure 2.4. Engaged Teachers Scale (ETS) - EE = emotional engagement (positive affect toward teaching); SE (Coll) = social engagement with colleagues; CE = cognitive engagement (work intensity in teaching); SE (Students) = social engagement with students (positive affect toward students). Likert scale 3 = rarely, 4 = sometimes, 5 = very often, and 6 = always.

As shown in Figure 2.4, with Likert six indicating a measure of ‘Always’, participant 110 responded to CE (cognitive engagement) and SE with colleagues (social engagement) with significant confidence that no other respondent recorded. Furthermore, the ETS data in Table 2.2, which measures a cognitive-affective state, indicates that teachers with fewer years of experience had the lowest engagement scores. In fact, of all the participants in the study, participant 105 scored lowest overall in emotional engagement, as is shown in Figure 2.4 and, according to Lane et al. (1990), was identified as having ‘very much above average’ EA on the eLEAS.

Table 2.2

Participants’ Responses to Engaged Teachers Scale (ETS)

SUBJECT	EE /24	SE(with colleagues) /24	CE /24	SE (with Students) /24	Total Engagement Score (/96)	Years with Board
102	21	23	20	22	86	10+
103	20	20	20	20	80	10+
104	17	19	20	19	74	LTO
105	16	18	17	16	67	2-5
106	20	20	22	22	84	6-10
109	20	18	20	20	78	6-10
110	21	24	24	22	91	6-10
112	20	19	18	20	77	10+
Total (Group)	155	161	159	161	79.6 (83%)	---

Note. EE = emotional engagement; SE (COL) = social engagement with colleagues; CE = cognitive engagement; SE (ST) = social engagement with students.

In summary, the participants in this needs assessment were considered emotionally aware with a significant range and complexity of emotional awareness based on the results of the eLEAS and the ETS data.

RQ2: What are teacher's own perceived daily positive and negative emotions (affect)?

Each PANAS-ESM response was scored for positive and negative affect, AM (Before School), PM (After school), plus one randomized time throughout the day. Seven participants produced 15 completed surveys for a total of 102 completed surveys (one teacher did not complete Friday's).

Table 2.3 displays participants' perceived weekly positive affect mean as measured during the fix-AM and PM data collection times. The difference between AM and PM positive affect mean for three participants (102, 104, and 110) dropped from 5.8 from the AM point of collection to 4 in the PM. Participant 102 recorded the highest AM weekly positive affect mean, while participant 105 closed out their days with the lowest positive affect in the PM.

When analyzing weekly mean of both PA and NA, as displayed in Table 2.3, PA was found to be significantly higher than NA, and NA had insignificant fluctuations.

Table 2.3

ESM - Summary of Fixed Sampling PANAS AM and PM Weekly Mean

Participant	Positive Affect		Negative Affect	
ID Number	AM	PM	AM	PM
102	50.2	46.2	13.2	13.8
103	50	50.4	23.4	21.6
104	38.2	32.4	18.2	18.0
105	32.2	30.6	16.2	16.8
106	48.5	45	10.5	10.5
109	39.2	45	13.8	11.2
110	41	35.2	20.6	20.8
112	37.2	35.2	15.6	16

Note. ESM = experience-sampling method; AM = 10 minutes before school; PM = 10 minutes after school. ESM of fixed sampling for participants' weekly AM and PM positive affect indicates significant variation.

RQ3: What impact do these emotions have on perceived enjoyment?

Each participant responded to an “in time” enjoyment measurement using a slider from 0 to 100 on the iDevice after each PANAS survey was complete. When looking at the participants' average enjoyment levels throughout the entire week in Figure 2.5, approximately 50% of the time the participants indicate that their enjoyment level is below 60%. Ironically, the participant 106, whose extremely low negative affect did not change over time, has the highest and most consistent levels of enjoyment.

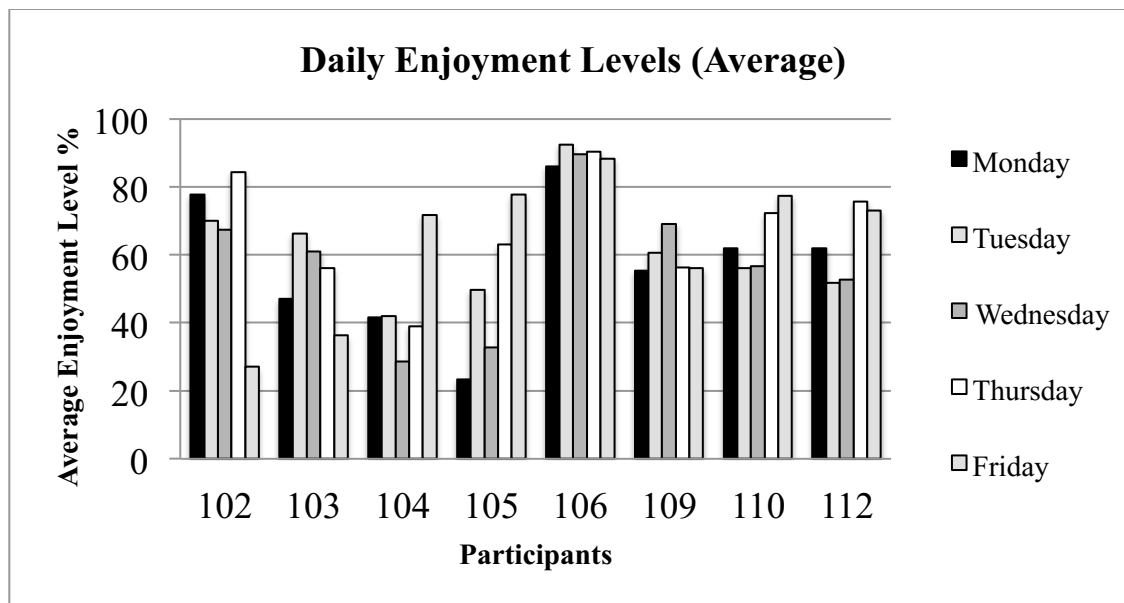


Figure 2.5. ESM - Daily and Weekly Mean of Enjoyment in Percent.

Six out of 9 participants' weekly mean enjoyment levels were below 65%.

Contextual information supports the significant variance for participants' Friday low levels of enjoyment. Professional Development opportunities consistently increased levels of enjoyment and student behaviour management decreased levels of enjoyment.

According to Crawford and Henry (2004), positive affect and negative affect are “relatively independent, but moderately negatively correlated factors” (p. 260). However, as shown in Table 2.4, there is evidence within the data collected that higher ratios between PA and NA correlate to higher enjoyment levels. For example, participant 102's positive affect to negative affect is approximately 3:1 with an enjoyment level of 65.3%. In comparison, participant 105's ratio is approximately 1.7:1, and their enjoyment level is approximately 49. Due to personality traits and external factors influencing negative affect measures, increasing and sustaining teachers' positive affect through transformational leadership further supports Leithwood's (2006) proposed solution to teachers' stressful work conditions.

Table 2.4

ESM – Weekly Mean - Positive and Negative Affect

ID	102	103	104	105	106	109	110	112
PA	143.6	152	112.4	88.8	140.5	124.8	113.2	108.2
NA	45.8	63.8	50	50.8	30.5	37.4	65.8	44.6
Difference	97.8	88.2	62.4	38	110	87.4	47.4	63.6

Note. ESM = experience-sampling method; PA = positive affect; NA = negative affect.

Contextual data. Essential to the analysis of Table 2.4’s data is an examination of the contextual information given by the participants while completing each PANAS-ESM; this is the foundational premise of the experience-sampling method in trying to capture ‘in time’ experience. Participant 102 experienced a significant drop in enjoyment and positive affect on Friday. The participant shared that the day had begun with managing student misbehaviour, labelled defiance, and grew to issues of non-compliance including grandstanding in-front of peers and refusing to come into the school. Later, the same participant had to plan and follow through on a difficult phone call to a parent.

Finally, the day ended with more behaviour management issues, thus contextually explaining the fluctuating positive affect measurements. In contrast, one participant started the week tired and frustrated by “trying to keep students on task when not my activity” [Participant 105]. However, a full day of professional development at the school board (out of the classroom) triggered a significant rise in both the enjoyment and positive affect, which continued on into declarations of “It’s Friday, it’s Friday, it’s Friday” on Friday. Lastly, participant 109’s data indicates a consistent level of enjoyment with Wednesday being slightly elevated, which was connected to a professional development opportunity and an “enlightening conversation with colleagues” around student work.

Once the formal data collection was complete, a question was posed to the participants through a general email posting. **RQ:** Was there any personal or professional value or benefit to participating in the pilot? If so, what?

This question was asked to gain insight into the experience of participating in the experience-sampling method. One participant wrote,

I think there was a personal and professional value to completing the surveys. It forced me to slow down and think about how my emotions impact how I am teaching and the reactions and interactions I have with my students. I know that my personal wellbeing was all over the place because of my status as a voluntary transfer (VT). I would be curious if I participated in this survey again at a different point of the year (without job action looming, without end of year stress looming) if the results would be different. That's my reflection [Participant110].

The fact that the process of completing the experience-sampling slowed down the teacher to reflect on how they were feeling 'in the moment' is worth further examination and will be a factor for consideration in the intervention. Interestingly, and with positivity, participant 112 wrote, "I think the value will be seen from the outcome of my data, as you determine how emotional well-being is affected in the workplace. I am curious what you will discover from the data" [Participant 112].

Discussion

The Engaged Teachers Scale (ETS) is based on cognitive-affective states, and the seven middle school teachers demonstrated a significant range and complexity of emotional awareness based on the Levels of Emotional Awareness Scale (eLEAS) online

assessment. Next, the sample population independently measured their daily self-reported personal positive and negative affect through experience-sampling over five consecutive workdays.

As shown in Table 2.5, three key findings emerged through the data analysis: a) based on the average enjoyment levels data, participants indicated that their enjoyment level was below 60% during approximately 50% of the work week, b) all participants experienced fluctuations in positive affect throughout the day based on interactions with others, and c) participants reported experiencing negative affect. The emotional capacity findings in teachers has significant implications for all stakeholders especially teacher well-being and student achievement, and may suggest a compromised workplace.

Table 2.5

Collated Data – All Collection Sources - Emotion

Participant	eLEAS		PANAS-ESM (PA	PANAS-ESM (NA	ETS	Enjoyment
	EA	ER	- Weekly Mean)	- Weekly Mean)	(EE – Mean /24)	(Mean - /100)
102	74.2	92	143.6	45.8	21	65.3
103	85.7	83	152	63.8	20	53.3
104	93.1	79	112.4	50	17	44.6
105	99	93	88.8	50.8	16	49.3
106	16.3	66	140.5	30.5	20	89.3
109	73.4	69	124.8	37.4	20	59.5
110	99	122	113.2	65.8	21	64.9
112	44.7	83	108.2	44.6	20	63.0

Note. eLEAS (Levels of Emotional Awareness) Emotional Awareness (EA) is in

percentile. Emotional Range (ER) is a protocol wide measure of complexity. It is a

cumulative score of all unique score-able words used across the protocol. PANAS-ESM

(5 day experience-sampling) of PA (positive affect) and NA (negative affect). ETS is the

Engaged Teachers Scale with EE (emotional engagement) isolated. Enjoyment measured through 0-100 slider scale.

As Ferguson, Frost, and Hall (2012) indicate, negative affect is a predictor of anxiety and depression, and all four stress factors acknowledged in the teaching profession; a) workload, b) student behavior, c) employment conditions, and d) lack of administration support, appear within the contextual data of the needs assessment.

Contextual data indicated somatic experiences of tiredness, self-doubt, and even elation at the arrival of the weekend. On Thursday of the day of the data collection week found a number of participants at a professional development session at the school board. Although initially documenting exhaustion, positive affect increased throughout the day, and contextual data indicated that connectedness with others, despite negative affect toward the learning experience, was central to the success of the day. Lastly, participants were asked to reflect on their personal experience of participating in the study, and one participant logged that there was “personal and professional value to completing the surveys. It forced me to slow down and think about how my emotions impact how I am teaching and the reactions and interaction I have with students” [Participant 110]. As Kelchtermans (2005) states, and these findings support, differences in work context either increase teachers’ sense of vulnerability or diminish it, which directly influences enjoyment levels.

It is a 21st century challenge for educators to navigate through the emotional landscape of teaching, and emotional awareness is “fundamental to an individuals’ ability to be self-reflective and to relate harmoniously with others” (Barchard, Bajgar, Leaf, & Lane, 2010, p. 592). Consequently, making a connection between the experience-

sampling data and the socio-emotional engagement factors in the ETS suggests an intensity in teachers' emotional work especially in establishing daily principled care. This ethic of care requires positive affect that impacts professional motivation, which is a strong predictor of resilient organizational performance (Markos, 2010).

Most importantly, these findings support Leithwood's (2006) report of Ontario teachers' working conditions indicating that "excessive and unrealistic social demands and lack of support" continue to permeate teachers' emotional landscapes (p. 36). The lack of administrator support reflects the reality of the changing role of Ontario principals. Although over 90% of 1,400 administrators find their work rewarding, Pollock (2014) found that only one-third of the surveyed sample felt supported and trained to do the job properly. The relational intersection between teachers and administrators within the school context presents the opportunity to address the four main areas that administrators identified to help increase their effectiveness in their role: (a) relationship building, (b) instructional leadership, (c) communication skills, and (d) mental health and wellness (Pollock, 2014).

In conclusion, several researchers emphasize the need for increasing and sustaining positive affect and identify that administrators play a critical role in fostering healthy organizational citizenship behaviors (Devall-Martin, 2015; Leithwood, 2006; Leithwood & Azah, 2014; Pollock, 2014). This raises the question, "How can administrators create the conditions within which teachers' relatedness produces positive affect to prime psychological well-being?"

Chapter 3: Intervention Literature Review

As outlined in chapter two's literature review, educators are experiencing significant amounts of workplace stress resulting in: (a) emotional exhaustion that hinders meeting stakeholder's socio-emotional and cognitive needs, (b) depersonalization that produces a negative attitude toward various stakeholders including parents and administration, and (c) low professional efficacy occurs with festering beliefs of inefficiency and ineffectiveness.

Similarly, in the needs assessment of this study, self-reported contextual data in a small sample of middle school teachers in Ontario indicated somatic experiences of tiredness and self-doubt with no mention of administration participation or support throughout the five-days of experience-sampling data collection (Devall-Martin, 2015). The absence of administrator connection is reflected in the most recent principal workload intensification studies with 86.5% of participating administrators never seeming to have enough time to get their work done because paperwork takes up to 90% of the workday, and that administrators need "reassurances of worth, reliable alliances, and opportunities for professional development and nurturance to carry out the job effectively" (Dutton & Heaphy, 2003; Frederickson & Losada, 2005; Leithwood & Azah, 2014, p. 6; Pollock, 2014). Consequently, a relational gap has emerged between administrators and teachers due to excessive managerial responsibilities, emotional labor factors, and the interpersonal fallout precipitated by the legislated removal of all administrators from the Elementary Teachers' Federation of Ontario (ETFO: Leithwood, 2006; Leithwood & Azah, 2014; Pollock, 2014; Markos, 2010). Subsequently, a pervasive negative mindset remains that diminishes human flourishing and researchers

are calling for educational leadership practices to improve conditions (Dutton & Heaphy, 2003; Frederickson & Losada, 2005; Leithwood, Patten, & Jantzi, 2010).

This call to healthier organizational life in schools, which was initially documented over two decades ago in Leithwood and Menzies' (1996) research on teacher burnout, presents the opportunity to establish a psychosocial intervention using a new psychometric tool called the LuminaSpark© and expressive writing practices to raise elementary administrators' self-awareness and to invest in their psychological well-being. Ultimately, it is hoped that the transformative learning design of the intervention, which adheres to Mezirow's (1981) adult learning approach, will prime administrators' psychological well-being to shift behavior toward high quality connections with all stakeholders resulting in greater support and emotional engagement for teachers that ultimately impacts student achievement (HQC: Dutton & Heaphy, 2003; Seashore Louis, Dretzke, & Wahlstrom, 2010).

Theoretical Framework

Three frameworks were used to analyze and synthesize the leadership development literature: contextual, theoretical, and empirical. A close examination of the literature reveals studies focusing on administrators' relatedness to teachers (as followers), building of school community through relatedness, and professional leadership development including the broad understandings around relatedness to *self*.

Theoretically, educators' psychological well-being, as defined by Ryan and Deci's (2000) self-determination theory (SDT), which includes autonomy, competency, and relatedness, takes into consideration the unique socio-emotional constructs within the educational context. In particular, positive socio-emotional relatedness with stakeholders

generates a culture of care and captures “the inherent growth tendencies and innate psychological needs that are the basis for self-motivation and personality integration” (Ryan & Deci, 2000, p. 68).

Micro-level: Self-concept

Originally validated by Baumeister and Leary (1995), relatedness is also known as the “need to belong” and, as cited previously, has several effects on cognition and emotion. In fact, it is a primer for human autonomous motivation and engagement factors (Eyal & Roth, 2011; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Ryan & Deci, 2000; Stone, Deci, & Ryan, 2009).

Self-determination

Self-determination is the human drive, almost as undeniable as the human need for food and water, to form and maintain strong and stable interpersonal relationships that sustain an ongoing human bond (Baumeister & Leary, 1995). For this to occur, there needs to be frequent and positive interactions along with a positive affective concern for the well-being of the other. Healthy human relatedness emerges in the school context when teachers are asked by administrators to take risks, share resources, and effectively collaborate, which are all pro-social behaviors and central to our human need to belong (Baumeister & Leary, 1995). In contrast, social exclusion decreases peoples’ pro-social behavior, leading to lower levels of empathy and trust (Twenge, Ciarocco, Baumeister, DeWall, & Bartels, 2007). Both self-determination and social exclusion have application in understanding individual behavior, achievement, and motivation. Furthermore, Baumeister and Leary (1995) suggest that the “belongingness hypothesis raises the possibility that much of what human beings do is done in the service of

belongingness...which might have considerable value for personality and social psychology” (p. 498).

Any real or imagined shifts in a person’s belongingness will produce emotional responses with positive affect connecting to an increase in belongingness, while negative affect (e.g. divorce) produces a break in the relational bond and decreases belongingness. Consequently, positive affect promotes social attachments (Beaumeister & Leary, 1995).

These socio-emotional attachments function cognitively as a schema of belief-systems that create biased interpretations and recall of past events. These internal biases fuel the intrinsic value of work. For example, sometimes a lack of support is perceived as creating belongingness deprivation when, in fact, there is tangible relational support (Beaumeister & Leary, 1995). The benefits of social support are well established in the research. Specifically, social bond networks buffer people against the ill effects of stress; social support, also redefined as companionship beyond just practical help, and found to be beneficial for psychological well-being and coping with stress (Cutrona, 1989). This leads the discussion into 21st century’s correlation of subjective well-being with happiness, which has been linked to personality factors (Achor, 2010). The process toward autonomy and relatedness that Stone, Deci, and Ryan (2009) promote is one of self-discovery through self-determination theory (SDT)-based organizational interventions. Six actions are identified in this process: (a) asking open-ended questions, (b) active listening, (c) offering choice, (d) providing sincere feedback, (e) minimizing coercive controls, and (f) developing skills and abilities. By breaking down a large school into small learning communities (SLC) and having students and teachers remain in

the SLC for their school career, participants experience an increased sense of relatedness through strategic use of the aforementioned intervention actions.

Self-actualization

The stress of purposefulness and striving (Maslow, 1954), which forms an individual's perception of their personal and professional identity, must be included in operationalizing self-concept (Korthagen, 2004). An individual's behavior is a by-product of their identity (Hamachek, 1999). Expressive behaviors, as Maslow (1954) suggests, are those behaviors that occur when an individual is being true to their *self* and not straining to create and sustain a personal or professional image. This is known as self-actualization, which is a stage of development marked by diminished striving and strong intrinsic motivation. It is an "easy state of simply being" (Maslow, 1954, p. 66).

Self-awareness

As shown in Figure 3.1, self-awareness differs from self-actualization. Self-actualization is an individual's need to realize all of their potential (McCarthy & Garavan, 1999). In contrast, self-efficacy is a person's belief in their ability to successfully perform a task. For purposes of this study, self-awareness is the evaluation of one's traits and personality, and how they align with the image they have of themselves. Specifically, self-awareness is "fundamental to individuals' ability to be self-reflective and to relate

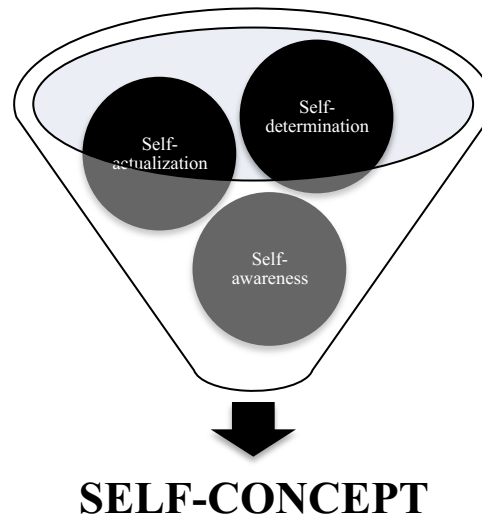


Figure 3.1. The proposed self-concept framework is a complex self-processing combination of self-determination, self-actualization, and self-awareness.

harmoniously with others” (Barchard, Bajgar, Leaf, & Lane, 2010, p. 592).

Furthermore, self-awareness is the primary driver in Nesbit’s (2012) self-directed leadership development model (SDLD) and it is a strong predictor of resilient organizational performance (Markos, 2010). This resilience is correlated with the self-care that is mediated by self-awareness and psychological well-being (Richards, Campenni, & Muse-Burke, 2010). Self-care, for the purposes of their study, included broad definitions of physical, psychological, and spiritual care. In their study of 148 mental health professionals, who are vulnerable to burnout, they found that “self-awareness was significantly associated with self-care importance and well-being” (p. 261).

The Ontario Ministry of Education (OME) has created, through research and consultation with various stakeholders, the Ontario Leadership Strategy (OLS; 2010) for administrators’ development. One of the three outlined goals is to increase leadership capacity and coherence in organizations by strengthening school administrators’ ability to deliver on education priorities. By increasing administrators’ self-awareness through the LuminaSpark©

experience and expressive writing practices conditions may be created to prime participants' relatedness to build trust with teachers, which is a property of high quality connections (HQC; Dutton & Heaphy, 2003). Tschannen-Moran and Gareis (2015) identify that, although administrators have limited direct impact on student achievement, faculty trust in the administration and how the principal(s) attends to benevolence, honesty, openness, competence, and reliability will develop interrelationships and behaviors that establish trustworthy leadership. In communicating such confidence in teachers' abilities and contributions, no matter what the challenges and difficulties within the school context, the leader transforms teachers' beliefs, which directly shifts behavior that influences student performance (Tschannen-Moran, 2014). "Trust, then, is an important factor associated with student achievement, as well as an important mediator of other leadership behaviors associated with student achievement" (Tschannen-Moran, & Gareis, 2015, p. 267).

Macro-level: School Ecological Model

The significance of trust within school systems is indisputable, and Hepburn and Brown's (2001) study of organizational factors within schools, ranging from power struggles with administration to government reforms that impact teacher responsibilities, were found to impact communication and interchange between staff and administration. Weak communication created misunderstandings and stress around decision-making, and these managerial structures make up the ecology of a school. Ecologically speaking, a school is a dynamic living organism that "emphasizes the complex interconnected, interdependent, and recursive nature of relationships between a range of environmental, interpersonal, and intra-personal factors that influence the daily lives of schools as organizations, teachers, and

students” (p. 697). Two conceptualizations of school leadership within the school ecology are the four paths theory and eco-systemic emotional literacy.

Four Paths theory

As shown in Figure 3.2, Leithwood, Patten, & Jantzi (2010) conceptualize school leadership through four paths: (a) the Rational Path, (b) the Emotional Path, (c) the Organizational Path, and (d) the Family Path, and Tschannen-Moran and Gareis (2015) posit that trust is key in cultivating the four paths to develop open communication and commitment to prime effective school culture for optimal student achievement.

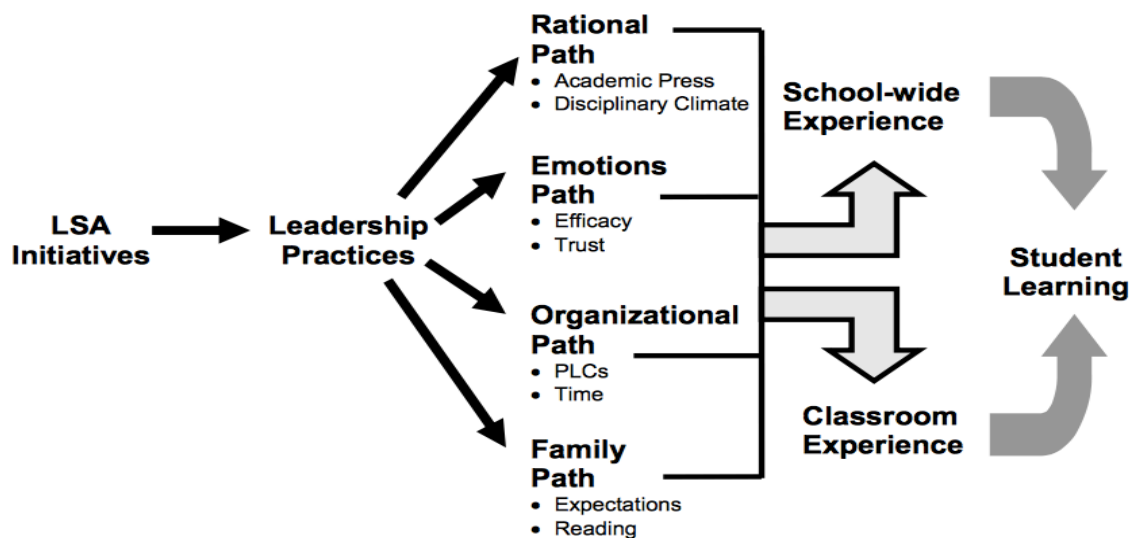


Figure 3.2. Leading Student Achievement Model (LSA: Leithwood, Patten, & Jantzi, 2010)

Eco-systemic Emotional Literacy

As shown in Figure 3.2, The Emotions Path (Leithwood et al., 2010) maps out the issues of connectedness and trust established through the quality of relationships in a school community. Nemec and Roffey (2005) refer to this as the emotional literacy in a school:

A values-based concept that underpins well-being for both individuals and whole school communities. This involves self-

awareness and personal skills in managing strong emotion but also includes empathy, empowering and valuing others, effective communication and conflict management skills, having a positive and constructive approach, building emotional resources and celebrating student and teacher success at all levels.

The interplay between the mirco- and macro-levels of emotional literacy in a school requires the meso- and exo-levels to function simultaneously (Roffey, 2008). In a qualitative study, Roffey (2008) used open-ended questions to explore individuals' feelings about the school's ethos and how it contributed to their well-being. Roffey (2008) found strong interconnections between different levels within the school system. As illustrated below in Figure 3.3, the levels function like Russian nesting dolls, with the components being interconnected and placed one inside the other.

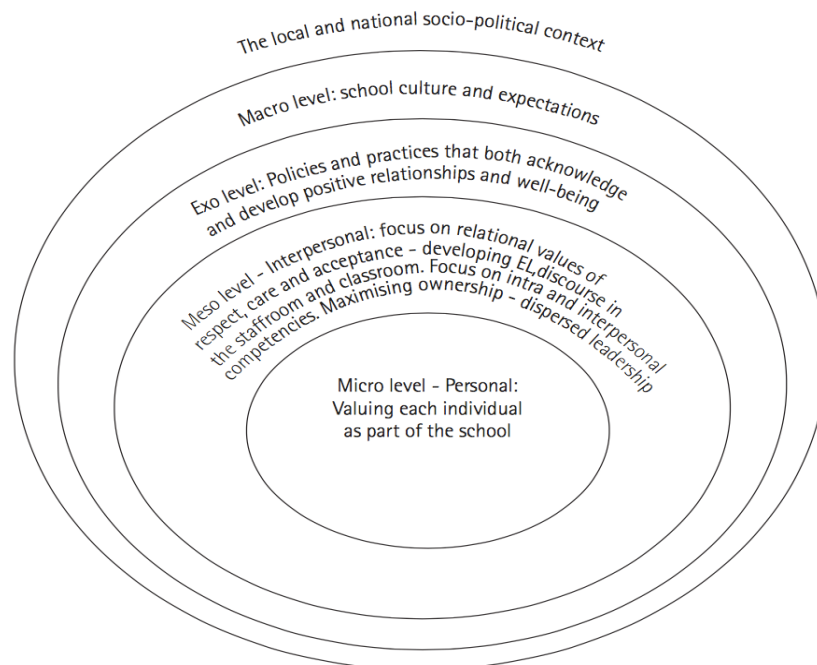


Figure 3.3. An eco-systemic analysis of emotional literacy in the school context established by Roffey (2008, p. 32).

Furthermore, Roffey (2008) found that teachers and principals acknowledged the need to model emotionally literate behavior, but teachers tended to be less positive if their values and beliefs did not line up with administration's student-centered focus. As a result, teachers perceived a lack of leader support. "Ultimately, emotionally and physically healthy teachers exist in environments where the school system and middle management work diligently to enhance self-actualization and esteem in teachers" (Grayson, & Alvarez, 2008, p.1352). Such leadership requires more than book club participation and conference attendance. It demands explicit professional leadership development to build leadership capacities based on researched adult transformational learning design.

Leadership Development - Adult Learning Theory

Adult learning theory has expanded over the last couple of decades, often to determine the return-on-investment (ROI) in post-secondary education, and it presents a theoretical framework for the intervention design.

Andragogy

Andragogy is the art and science of helping adults learn and it is based on the assumptions that adult learners are different from children because, as' (1984) outlines: (a) they have more life experience, (b) they are more independent, (c) they are motivated by their perceptions of personal need (intrinsically motivated), and (d) they are more self-directed with a great need to immediately apply their learning in their personal or professional context. This adult learning theory, as opposed to pedagogy (child learning theory), compels the intervention designer to address process design elements, as shown in Table 3.1: (a) involve the adult learner in the design and evaluation process, (b) reference the adult learner's past

experience, (c) keep the learning experience relevant, and (d) use problem-centered designs versus content-centered designs.

Table 3.1

Knowles' Eight Process Design Elements in Andragogy (1984)

Process Design Element	Andragogical Approach to Learning
Preparing the learner	Supply information, prepare students for participation, develop realistic expectations, begin thinking about content
Climate	Relaxed, trusting, mutually respectful, informal, collaborative, supportive
Planning	Mutually by learners and facilitator
Diagnosis of needs	By mutual assessment
Setting of objectives	By mutual negotiation
Designing learning plans	Learning contracts, learning projects, sequenced by readiness
Learning activities	Inquiry projects, independent study, experiential techniques
Evaluation	By learner-collected evidence validated by peers, facilitator, experts, criterion-referenced

Questions were raised over the years about this being an actual theory of learning that measures learning, so some shifted to calling it a planning model (Pratt, 1993). However, these four principles, being applied to various adult-learning contexts, contributed to the valuable adult-learning framework called transformative learning (Mezirow, 1991).

Transformative Learning Theory

Transformation is a term captured in leadership theory, and it is widely used in resilience development as a form of response to living with stress (Mezirow, 1981). “The theory describes how adults integrate new information, perspectives, or practice into their world view as they engage in learning. When learners engage in opportunities to reflect on the meaning of what they are learning, they may engage in evaluating their familiar values, beliefs, and assumptions” (King, 2004, p. 155).

Mezirow (1991) defined learning as shifting one’s perspectives including interconnections with society and nature. Consequently, learners continuously investigate their

own environment including power structures, culture, technology, and ideology. In fact, Mezirow suggests: “Ideology is a form of pre-reflective consciousness, which does not question the validity of existing social norms and resists critique of presuppositions. Such social amnesia is manifested in every facet of our lives” (p. 16). Learners must move beyond this ‘amnesia’, also referred to as convergent thinking, to divergent thinking which requires no predetermined answer in order to trigger a new transformative perspective. Two frames interconnect in the theory: (a) habits of mind and (b) points of view. Habits of mind refer to the broad assumptions individuals use to filter for meaning in daily life. Although similar in the function, points of view can be altered more easily through critical reflection and self-examination particularly feelings of shame and guilt.

Hierarchical power relationships distort emotional and cognitive aspects of communication within the multi-faceted professional landscape of teaching (Blase & Blase, 1997). This is recorded in the literature on compulsory government educational reforms, educators’ relationships with students, working conditions, and their impacts on teachers’ emotional labor (Bailey, 2000; Bascia & Rottmann, 2011; Devall-Martin, 2015). Distinctively, the school context presents opportunities within informal spaces for adult learning, and the role of the leader is central in utilizing these conditions to optimize teachers’ learning and foster positive affect (Eraut, 2004; Hargreaves, 1998, 2000, 2001).

Administrators’ Relatedness to Teachers

Within the revised standards for educational leadership in Ontario, in the Ontario Leadership Framework (IEL, 2013), there are several references to cultivating a culture of beliefs, attitudes, and values through trust building that triggers behavior that focuses on student learning. The leadership standards clearly state that creating, maintaining and

sustaining school culture is the administrator's responsibility. For example, Standard 5 states: "An educational leader promotes the success and well-being of every student by promoting the development of an inclusive school climate characterized by supportive relationships and a personalized culture of care" (p.18).

Leadership Competencies

Leadership competencies play a key role when considering how an administrator creates conditions of care to elevate teachers' relatedness and well-being. Scholars agree that transformational leadership combined with instructional and collaborative skills, and not reward-based transactional leadership, generates intrinsic motivation in teachers, which impacts student achievement (Avolio & Gardner, 2005; Eyal & Roth, 2011). In fact, some have referred to blended leadership by various labels using a variety of combinations of competencies: autonomy support (Gagné & Deci, 2005), collaborative leadership (Coleman, 2011), paradoxical leadership (Smith, Besharov, Wessels, & Chertok, 2012), resonant leadership (Boyatzis & McKee, 2005), and "post-heroic" leadership (Collinson & Collinson, 2009). Leadership styles are described through leadership competencies and contemporary leadership theories identify the need for authentic relational leading to generate trust and establish authentic followership (Tonkin, 2013; Shamir & Eilam, 2005).

According to Avolio, Gardner, Walumbwa, Luthans, and May (2004), authentic leadership competencies impact teacher motivation and engagement, and Eyal and Roth (2011) propose that there is a negative correlation between transformational leadership and burnout. Two of the central tenets of transformational leadership are examined

further and include *individualized consideration* and *constitutive competencies* (Avolio, Bass, & Jung, 1999).

Individualized Consideration Competencies

Leaders who attend to followers' uniqueness and needs, and who support them in realizing their personal potential are exercising individualized consideration (Eyal & Roth, 2011). A relational discrepancy occurs if the teacher thinks that the administrator sees their "ought selves" rather than their "actual selves" (Robins & Boldero, 2003). This discrepancy produces volatile feelings of approval that have limited connectivity (Robins & Boldero, 2003).

This is where individualized consideration intersects with inspirational motivation in transformational leadership theory to foster positivity and trust (Avolio, Bass, & Jung, 1999). Ilies, Spitzmuller, and Dimotakis' (2012) confirm the power of this competency combination in leadership practice and suggest that it is essential to generate idealized influence, which is another component of transformational leadership (Avolio et al., 1999).

Others, like Ilies, Spitzmuller, and Dimotakis (2012), have put forth the same view that:

Perhaps most importantly, we found that when it comes to having an idealized influence on one's followers, being expressive is a necessary, but an insufficient condition, in that one has to also be authentic in trying to build open and truthful relations with subordinates for expressiveness to translate into idealized influence (p. 14).

In order to facilitate such a condition, Shamir and Eilam (2005) recommend using life-stories as a vehicle to foster reciprocal confidence between follower and leader. This is a process of moving beyond simple sharing of personal events. A personal narrative is created through self-reflection that is framed by a personal worldview and leadership philosophy. This merges a leader's self-awareness with their role and thereby provides a window for followers to observe and confirm a leader's authenticity.

As shown in Figure 3.4, administrators have increased managerial responsibilities triggered by tightening controls by educational systems (Pollock, 2014). Pollock (2014) outlines the hours spent on different tasks, duties, and responsibilities per week as an administrator in Ontario, Canada, based on the surveyed responses of over 1,400 administrators.

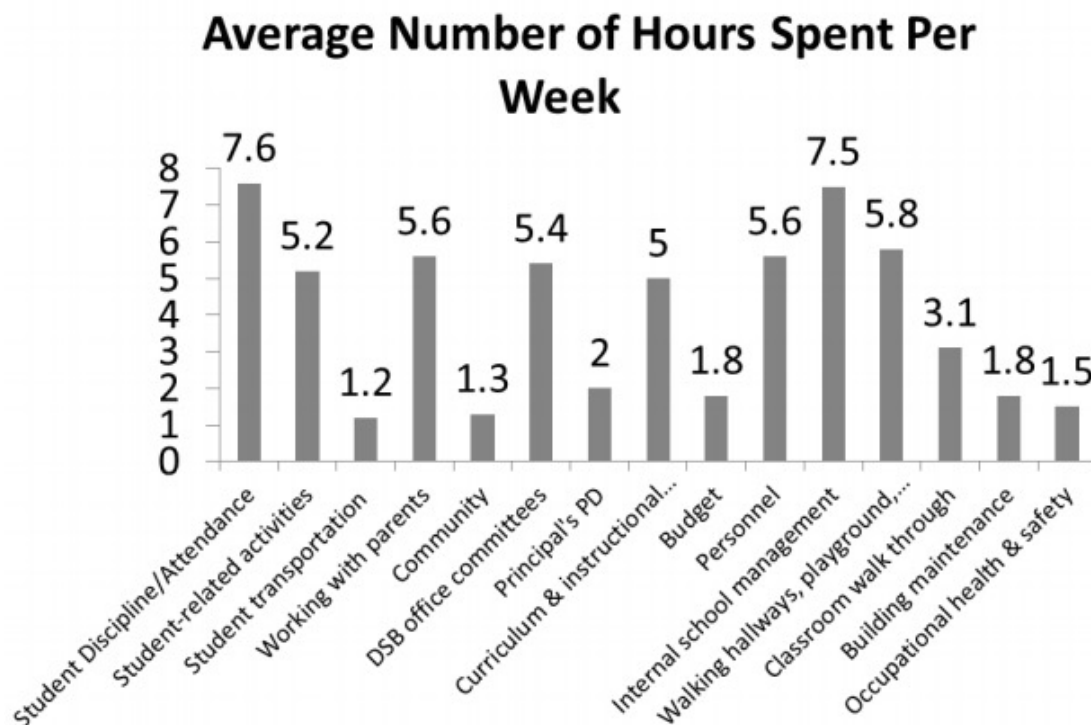


Figure 3.4. Number of hours spent by school administrators per week per task (Pollock, 2014, p. 16).

Despite this reality, administrators must move followers beyond compliance into authentic engagement through individualized consideration. This could potentially be achieved through professional development with the LuminaSpark© inventory, and the dyadic creation and monitoring of teachers' professional development with the Annual Learning Plan (O. Reg. 98/02).

Current legislative and regulatory requirements set out in the Ontario Education Act RSO 1990, c E. 2 and in the revised Ontario Regulations (O. Reg. 98/02) mandate that Ontario teachers complete an Annual Learning Plan (ALP) each school year to foster professional growth. Current autonomous professional development is competency-based teacher education (CBTE), which is a shift from the past humanistic-based teacher education (HBTE; Korthagen, 2004). Teachers' relatedness, no matter the type of social engagement, is significantly linked to positive affect, particularly if there is a level of intimate involvement. Intimate involvement means that feelings of appreciation and of "being understood" are generated while teachers discuss personally meaningful matters (Reis, Sheldon, Gable, Roscoe, and Ryan, 2000). The ALP provides an opportunity for administrators to establish relatedness-focused conditions, created through a renewed Annual Learning Plan process, to increase teachers' positive affect and teachers' autonomous motivation (Eyal & Roth, 2011; Stone, Deci, & Ryan, 2009). Furthermore, it is within the mundane day-to-day actions, as Coleman (2011) describes, that a leader repeatedly communicates their values and beliefs within formal and informal workspaces. Reflecting on events that intersect with the mundane through expressive writing experiences might provide administrators with the platform to process values and beliefs for future verbal expression with staff.

Constitutive competencies

Constitutive competencies, according to Coleman (2011), are those competencies that assist a leader in establishing an emotional climate, usually through collaboration, strong oratory proficiencies, and active listening skills that exhibit empathy. Scott, Colquitt, Paddock, and Judge (2010) found that a manager's empathetic concern and/or visible personal distress factors were linked to positive affect (PA) and/or negative affect (NA), which is directly linked to trust that impacts employee goal progress.

Similarly, Hardiman's (2012) first target in the *Brain-Targeted Teaching Model* focuses on creating a positive emotional climate. This positivity "increases subjects [students'/teachers'] scope of attention, global thinking, and increases thought-action responses" (Hardiman, 2012, p. 39). Creating a positive climate counters the negative affect produced through chronic stress associated with higher levels of allostatic load (AL), particularly in female teachers (Bellingrath, Weigl, & Kudielka, 2009). AL is a physical wearing-down of the major regulatory systems of the body, and high levels of AL increase the risk of disease. Emotional exhaustion is correlated with high levels of AL, which supports the urgency in addressing the emotional conditions within the profession of teaching through administrators' leadership development in relatedness to self.

Administrators' Relatedness to *Self*

Although there are many definitions for *self* in psychology, for purposes of this study, *self* is defined theoretically as "an organized summary of information, rooted in observable facts concerning oneself, which includes such aspects as traits, character, values, social roles, interests, physical characteristics, and personal history", and is also

referred to as self-concept (as cited by Korthagen, 2004, p. 83). Being aware of your own personality traits can help guide and nurture self-knowledge to develop personal identity and self-concept, therefore clarifying values and beliefs. Having a solid understanding of one's values and beliefs then provides the foundation for presence-based leading to foster high quality connections (HQC; Dutton, & Heaphy, 2003).

Personality Inventories

Diverse aspects of human thriving are associated with the five significant dimensions of personality called the Big 5 (John, Naumann, & Soto, 2008). Researchers have effectively reduced the diverse ways humans differ in personality to five dimensions: (a) Conscientiousness, (b) Agreeableness, (c) Neuroticism, (d) Openness, and (e) Extraversion. Ozer and Benet-Martínez (2006) have researched the impact of personality traits on human well-being, health and emotion, and they reported that personality traits have a genetic component that accounts for approximately 50% of the trait variation within people.

In addition, the socially popular Myers-Briggs Type Indicator (MBTI; Myers, McCaulley, Quenk, & Hammer, 1998) is a personality indicator based on the work of Carl Jung, who established four dichotomies: (a) extraversion vs. introversion, b) sensing vs. intuiting, c) thinking vs. feeling, and d) perceiving vs. judging (Myers et al., 1998). However, this tool lacks reliability due to its forced-choice format. Consequently, the consistency that an individual is likely to receive the same profile score on repeated assessments is weak (Pittenger, 1993).

In contrast, the LuminaSpark© inventory is a psychometric tool with 144 questions that measure eight personality aspects with three qualities each creating 24

qualities which are measured by six questions for each based on Jungian and Big 5 theory. Each question using a continuum, which allows paradox to emerge between traits that reflect situational considerations. It is not forced-choice.

All of the psychometric tools outlined generate information on the *self*, which assist a leader in guiding, visioning, and communicating. Most importantly, having self-knowledge allows a leader to better understand their role in the midst of complex interrelations required by the job.

Presence-based leading

Today, the complex professional landscape requires that administrators consciously lead with “who they are” through active intentional practicing of *presence* – being present to oneself (Rodgers & Raider-Roth, 2006). Greene (1973) defines presence as wide-awakeness, and Hamachek (1999) reiterated Greene (1973) by writing, “Consciously, we teach what we know; unconsciously, we teach who we are” (p. 209). Csikszentmihalyi (2000) calls it “flow” (p. 7), and Noddings (2006) joined the academic conversation suggesting that presence is at the core of caring, which she proposes as fundamental to effective teaching (as cited by Rodgers & Raider-Roth, 2006, p. 180). Presence is central to leading. It must be established in and interconnected with the welfare of others so that moral benefits are realized and positive affect is fostered in a school climate (Hargreaves, 1998).

High quality connections

Since the overarching goal of this intervention is to grow high quality connections (HQC; Dutton & Heaphy, 2003) for organizational revitalization, then identifying the quality of an interpersonal connection is a pivotal construct. HQC theory purports that

relational growth occurs in “mutually empathic interactions, where both people engage with authentic thoughts, feelings, and responses. Through this process they experience mutual empowerment, which is characterized as a feeling of zest, effectiveness of the other person, greater knowledge, sense of worth, and a desire for more connection” (p.272). This theory directly addresses Leithwood and Azah’s (2014) finding that administrators desire nurturance and assurances in their work, and have the need to develop relational skills for job effectiveness.

Dutton and Heaphy (2003) continue to define interpersonal connections as having high quality when three characteristics are present: (a) higher emotional carrying-capacity as demonstrated by increased expression of both positive and negative emotion creating a sense of safety, (b) tensility of the connection, which is its ability to withstand strain and stress, and how the connection responds to conflict, and (c) the degree of connectivity, which is the measure of openness and generativity. These are the barometers of the quality of connection (HQC), which is a nonlinear dynamic that Fredrickson and Joiner (2002) call the upward spiral of human functioning.

Schools have a wide range of less structured contexts that are seldom thought of as learning environments, but they foster the upward spiral of human functioning (Eraut, 2004; Fredrickson & Joiner, 2002). Workplace learning also refers to informal professional development, which is complex and involves the uniqueness of individuals, the range of opportunities available, and the motivation of the leadership and followership (Jurasaitė-Harbison & Rex, 2010).

Administrators' Reflective Practice

Jurasaitė-Harbison and Rex (2010) used interactional ethnographic data collected by embedded researchers listening-in-on teachers' moment-by-moment interactions. This included listening to teachers' verbal discourse, observing teachers' body language, and considering contextual conditions. The researchers found that professional relationships positively impacted teacher-learning patterns, as did the school mission, traditions, and physical environment. Specifically, teachers' reluctance to talk about failures or attempts with new ideas permeated the culture, and they were protective of their professional identity. Consequently, teachers chose to stay in their rooms during planning times, inconsistently implemented peer coaching, and indulged in negative emotions that hindered intimacy in collegiality.

Sharing positive experiences

Traditional methods of professional development that focus on deliberate cognitive learning, according to Hoekstra, Brekelmans, Beijaard, and Korthagen (2007), have limited effects in changing practice. Therefore, bringing informal learning spaces to life with positive affect requires a shift in administrators' learning perception beyond formal professional development structures. Lambert et al. (2013) substantiated that sharing positive experiences stimulates positive affect, which assists in shifting teachers' and administrators' perceptions. More specifically, sharing positive experiences in conjunction with receiving an enthusiastic and affirmative response optimizes positive affect, reinforcing the value of reciprocal active listening and emotional expressivity as mentioned by Ilies, Spitzmuller, and Dimotakis (2012). Notably, the methodology of Lambert et al.'s (2013) study required participants to journal daily positive experiences with gratitude, and then entries were shared twice per week with

colleagues. Consequently, a three-fold framework was found to optimize positive affect: (a) journaling, (b) sharing, and (c) active-constructive responses.

Expressive writing

Recognized within critical care professions such as nursing, expressive or reflective writing, also referred to as journaling, is an effective tool to develop critical thinking skills, to foster self-knowledge, and to facilitate coping (Craft, 2005). Schools using reflective writing establish guidelines usually involving the writer's most significant event that occurred within the professional setting and encourage a free-flowing manner. In addition, they designate how much time is required during each writing session. According to Richardson and Maltby (1995), nursing students reported "thinking" as a result of their writing, which aided them in understanding their emotions and actions.

According to Kuklick, Gearity, and Thompson (2015), who drew upon Schön's (1987) reflective practice theory to create online reflective journal (ORJ) prompts in a study of 21 coaching students, time significantly influenced the depth of students' reflections. The theoretically designed prompts induced significant reflective responses without formal reflective practice workshops.

Critical (core) reflection

Although philosophical in nature, empirical evidence suggests that reflection practices supports the development of mindfulness (Meijer, Korthagen, & Vasalos, 2009). Reflection, as it has been commonly taught, usually focuses on the context, the behavior, the skills, and the beliefs experienced by a person (Korthagen & Vasalos, 2005). To get to the heart of educators' emotional exhaustion and administrator work

overload, all four components must be considered, however, values and beliefs have significant influence over the others. In The Onion Model Theory, which Korthagen (2004) titled “a model of levels of change” (p. 79), four foci including context, behavior, skill, and beliefs are taken into consideration. This model produces a reciprocal framework that defines an individual’s professional identity through core reflection (Meijer et al., 2009). Used in conjunction with the LuminaSpark© GROWS goal setting portion of the workshop, deeper insights and reflection will occur. Core reflection occurs at the deepest level of contemplation using the model of levels of change that integrate identity and mission (Korthagen, 2004). It is at this level that the individual reacquaints themselves with their mission, and, instead of pondering problems, new possibilities emerge through positively directed thinking.

Meijer, Korthagen, and Vasalos (2009) tracked one teacher for one school year to support, monitor, and document her development of *presence*. In keeping with positive psychology, the teacher kept a daily journal of experiences and reflections using questions for deeper reflection on mission and values (Meijer et al., 2009). Findings indicated that this practice primed self-awareness, which went beyond the process of teaching, and the teacher experienced more presence while in the classroom, thereby increasing her effectiveness. In fact, core reflection has also been found to make people aware of their level of presence in non-teaching situations, which influences their behaviour (Meijer et al., 2009). This study parallels, methodologically, Lambert et al.’s (2012) study in its three-fold design: (a) journaling, (b) sharing, and (c) active-

constructive responses, which optimizes positive affect. Using independent journaling¹ of positive experiences at self-determined intervals helps re-ignite integrate identity and mission (Lambert et al., 2013). Utilizing this construct within the design of the intervention may impact both engagement and cultivate presence.

Summary

The present professional landscape of education in Ontario, including repeated political tensions, identified work intensification issues, and an increase in student mental health incidents, create tainted conditions for professional growth (Rodgers & Raider-Roth, 2006). Attempting to cultivate organizational health in these conditions is a priority, and requires the successful execution of leaders' individualized consideration and constitutive competencies through core reflection practices using expressive writing practices and the LuminaSpark© psychometrics of three personas; Everyday self, Underlying self and Overextended self. Emancipatory leadership may emerge through self-exploration of alternative perspectives, challenging presuppositions, and shifting old ways of understanding through an organized transformative learning intervention (Mezirow, 1991). Then, by acting on new perspectives, there is the hope that high quality connections (HQC) will begin the upward spiral of human flourishing with school administrators and lead to better support and emotional engagement for teachers.

¹ Journaling can be in any chosen form: dot-jot form, voice recorded, scrapbook/portfolio evidence, and/or feedback from students or parents. The only criteria is that it is a documentation of positive experience (Lambert et al., 2011)

Chapter 4: Intervention Procedure and Program Evaluation Methodology

The primary intent of this mixed-methods two-treatment exploratory study is to test the use of a psychosocial intervention guided by the LuminaSpark © psychometric inventory (Ensor, Brenstein, & Desson, 2013) and six expressive writing experiences (Pennebaker & Smyth, 2016).

Intervention Design

The online psychometric inventory called the LuminaSpark©, recognized by the Ontario Principals' Council (OPC), supports the Ontario Leadership Framework (OLF; IEL, 2013), which reflects the interpersonal depth required in the administrator role. Specifically, this intervention addresses the OLF domain for professional development in 'Building Relationships and Developing People' and administrators' cognitive, social, and psychological resources required to build leadership practices.

Logic Model

The population sample for this exploratory intervention consists of 20 elementary school administrators, which is approximately 9% of present membership in the district. The study is supported by Lumina Learning Canada© who provided the psychometric tool that produced the Lumina Portrait© for each participant, the workshop outline, and the workshop facilitator.

Following completion of their volunteer registration, participants will be randomly distributed to either the Treatment Group A (LuminaSpark; $n=10$) or to Treatment Group B (Expressive Writing; $n=10$ each) based on timing of their digital registration through Google Forms. This randomization provides "statistical assurance

that there are not initial differences that could appear in dependent measures as apparent treatment effects” (Leviton & Lipsey, 2007, p. 49).

Upon receipt of written consent, each administrator in Treatment A, who will be assigned odd identification numbers starting with 2016_001, will be asked to complete the LuminaSpark© online 144-question inventory that is documented as a reliable and valid psychometric measurement of the participant’s three personae: (a) Underlying persona, (b) Everyday persona, and (c) Overextended persona (Ensor, Brensetein, & Desson, 2013). Each participant will receive a 65-page LuminaPortrait© and digitally participate in the Time 1 (Initial) measure questionnaire. All Treatment Group B members, who will be assigned even identification numbers starting with 2016_002, will receive concise and clearly stated electronic writing instructions (Pennebaker & Evans, 2014). Each participant will write in response to predetermined prompts during the workweek for 15-20 minutes over the four-week period. These digital journal entries will be collected and coded.

The initial measure, obtained through a single questionnaire will be individually administered prior to all intervention activities and completed electronically. The survey will take approximately 20 minutes and will measure participants’ Psychological Capital (PsyCap; Luthans, Avolio, & Avey, 2007), Psychological Well-being (PWB: Ryff, 1989), and Self-reflection and Insight (SRIS: Grant, Franklin, & Langford, 2002), and also gather demographic information. The workshop on the Lumina Portrait© is face-to-face and facilitated by a volunteer Lumina Learning Canada© practitioner. All participants will complete fidelity measures of their the LuminaSpark© experience.

Regarding outcome measures, the original questionnaire will be re-administered at Time 2 (Week 4) and transformative learning measures through the Learning Activities Survey (LAS; King, 2009) will be used in focus group interviews to determine “whether adult learners have had a perspective transformation in relation to their educational experience; and if so, determining what learning activities have contributed to it” (p. 14). Consequently, the index of implementation for this study (Leviton & Lipsey, 2007) requires the pre- and post-survey completion and includes:

Table 4.1

List of Intervention Elements by Treatment

LuminaSpark© Treatment	Expressive Writing Treatment
<ul style="list-style-type: none"> • Completed LuminaSpark© psychometric online inventory • Attendance at LuminaSprak© workshop and completion of Post-workshop survey • Attendance and completion of Focus Group Questions – Transformative Learning Measures 	<ul style="list-style-type: none"> • Completion of four to six of the expressive writing experiences. • Attendance and completion of Focus Group Questions – Transformative Learning Measures

In the short-term, it is hoped that participating administrators will gain self-knowledge that moves into self-understanding and self-change through critical reflection (Nesbit, 2012). In addition, participants might develop a common language to discuss, both formally and informally, their strengths, goals, and experiences, which fosters interpersonal connections. The Expressive Writing participants will experience the value of reflective writing in a digital journal, which helps to organize and structure the sense-making process. Writing also facilitates reflection by distancing situations, thus reducing predispositions related to guarding one’s self-concept (Daudelin, 1997).

LuminaSpark© Treatment

The LuminaSpark© inventory is based on best practices within the Jungian personality trait models from the 1920s, the popular four-quadrant or temperament models (e.g. DISC model), and the Big 5 empirical models also referred to as the five factor model (FFM). This recently established psychometric tool measures 24 traits through 144 questions using a Likert scale continuum. Each trait is independently measured including the level to which each individual uses opposite, competing, and (sometimes) seemingly contradictory aspects of personality (e.g. introversion and extroversion).

Regarding construct validity of the LuminaSpark©, as outlined in Table 4.2, the 24 Qualities were entered into a factor analysis using the four factors of the model (eight Aspects): Discipline Driven/Inspirational Driven, Introverted/Extraverted, People Focused/Outcome Focused, and Big Picture Thinking/Down to Earth. The hypothesized four-factor structure clearly emerged from the Principal Components Analysis followed by Varimax rotation in the analysis of the 24 Qualities. In addition, the Aspects positively correlate with adjacent Aspects they belong to, and there are relatively strong negative correlations with the opposite set of Qualities (Ensor, Brenstein, & Desson, 2013).

Table 4.2

Factor Analysis at 24 Quality Level – LuminaSpark©

	IN/EX	DD/ID	BPT/DTE	OF/PF
Observing	.91			
Measured	.88			
Sociable	-.83			
Demonstrative	-.80			
Intimate	.70			-.40
Takes Charge	-.52		.40	.47
Purposeful		.87		
Flexible		-.85		
Reliable		.80		
Structured		.80		
Spontaneous		-.79		
Adaptable		-.78		
Imaginative			.85	
Conceptual			.84	
Radical			.77	
Practical			-.75	
Evidence-Based			-.63	
Cautious	.41		-.62	
Empathetic				-.94
Tough				.79
Logical				.78
Accommodating				-.73
Collaborative				-.71
Competitive				.56

Note. A Principal Components analysis with Varimax rotation was used. N = 2, 158.

Loadings > + .40 are shown. IN/EX = Introverted/Extroverted; ID/DD = Inspiration

Driven/Discipline Driven; OF/PF = Outcome Focused/People Focused; DTE/BPT =

Down to Earth/Big-Picture Thinking (Ensor, Brenstein, & Desson, 2013, p. 6).

Consequently, LuminaSpark© measures both ends of the spectrum separately. As demonstrated in Table 4.2, the Big 5 are correlated to the LuminaSpark's© eight traits with neuroticism being addressed through the Overextended Personae. LuminaSpark© refers to the seeming contradiction between individually measured opposite traits as

‘Embracing Paradox’. The cumulative assessment identifies the participant’s 24 qualities to illuminate how he/she functions naturally, how he/she functions everyday, and how he/she functions when overextended, thereby creating an individualized colorful mandala which is the key visual aid (Ensor, Brenstein, & Desson, 2013).

Each participant will use their personal 65-page Lumina Portrait© during a one-day five-hour workshop facilitated by a certified LuminaSpark© practitioner to increase self-awareness and adapt behaviors to improve interpersonal connections through goal setting. All participants will complete a fidelity-of-implementation survey regarding the inventory and workshop. In addition, Treatment Group A will participate in the closing Focus Group discussions.

Expressive Writing Treatment

Concurrently, Treatment Group B will participate in expressive writing experiences for 15-20 minutes per day during two workdays for three weeks and produce six digital written artifacts in total. All writing will be in response to digitally distributed critical reflection prompts based on the work of Pennebaker and Evans (2014). In addition, Treatment Group B will participate in the closing Focus Group discussions.

Intervention Evaluation Methodology

Pre- and post-intervention measures include a survey of participants’ Self-reflection and Insight (SRIS; Grant, Franklin, & Langford, 2002), Psychological Well-being (PWB; Ryff, 1989), and Psychological Capital (PsyCap; Luthans, Avolio, & Avey, 2007). Triangulation of data will occur using the qualitative data extracted from the participants’ online reflective writing and post-workshop reflections using electronic coding and the Linguistic Inquiry and Word Count measures, to measure magnitude

(LIWC; Pennebaker, Booth, Boyd, & Francis, 2015), and the final focus group interviews with post-pilot fidelity of implementation measures, which are supported through Transformational Learning Theory (King, 2009), and will close out the intervention.

Participant Recruitment

Incentive to participate in the experiment is directly embedded in the design. Each LuminaSpark© participant will receive a 65-page document outlining their three personae: (a) Underlying persona, (b) Everyday persona, and (c) Overextended persona after completing the online LuminaSpark© inventory. Treatment A will receive and participate in the LuminaSpark© inventory and workshop and will receive their personal Lumina Portrait©, which is thorough and provides tools for how to work with your opposite personality, seeing yourself in others, and speed-reading individuals. In addition, although the attendance at the workshop is mandatory for Treatment A, it is free. Treatment B will receive the same LuminaSpark© opportunity outside of the timeline of this study.

In order to recruit and sustain participation, the research team must anticipate potential attrition by emphasizing the incentive, utilizing professional associations, and establishing a solid communication portal and plan.

Attrition can be diminished through collaboration with representatives from the administrators' organization with the school board in the early planning stages. This connection is key in recruiting and conveying information, however, there is still potential attrition once the intervention begins. Three strategies will be used, based on Cook et al. (2010), to address the possibility of attrition: (a) "provide answers to frequently asked questions" up-front in a Google package and through clear lines of

communication through an designated Gmail account (p. 214), (b) collection of more contact information than is really needed in the registration process so that connections can be made through a variety of means, and (c) anticipating objections, frustrations, criticism, and complaining through continual communication around value of the intervention, and not taking it personally.

According to Bryson and Patton (2010), “the process [of stakeholder analysis] is designed to gain needed information, build political acceptance, and addresses some important questions about legitimacy, representation and credibility”, thereby making it an essential aspect of the research design process (p. 46). This shifts the research design from something that is being done *to* stakeholders to something that is being done *with* stakeholders to generate commitment through the bond of involvement (Torgersen, Torgerson, & Taylor, 2010).

The ‘tipping point’ stakeholder, who is the person “looked to by others for information” (as cited by Bryson & Patton, 2010, p. 39), is the current president of the managerial and supervising branch for all elementary principals and vice-principals in the district. As shown in Figure 4.1, the president’s bases of power include the entire membership, which is the access portal for the proposed intervention. Not gaining access to administrators completely prohibits implementation. In addition, the district president sustains healthy connections with key district influential(s).

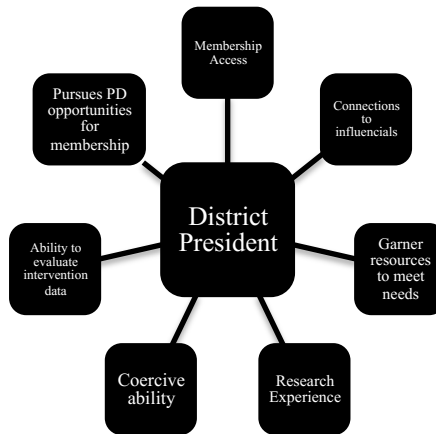


Figure 4.1. Stakeholder bases of power using a directions of influence diagram.

The bases of power-directions of interest diagram, adapted from Eden and Ackermann's (1998) star diagrams, was constructed for the tipping point stakeholder after the power versus interest grid was completed (as cited by Bryson & Patton, 2010). The diagram reflects the sources of power available to the stakeholder and the outcomes the stakeholder desires. Ultimately, the alignment of the intervention with the overall goals and direction of the entire organization, through the tactical tipping point stakeholder's support, enhances the potential to meet expected processes and outcomes that will be useful in the district.

According to Bryson (2004), stakeholders support evaluation by identifying how the intervention fits within the immediate political and economic climate of the organization. Having just come through an organizational restructuring and a season of collective bargaining that precipitated in work-to-rule in Ontario, the workgroup's perspectives through their job embedded priorities will align the intervention with the most immediate organizational goals. The challenge in maintaining stakeholder engagement must be addressed through a deliberate communication plan to build relationships, and ensure consistent input and strategic time-investment.

The Evaluation Design

According to Rossi, Lipsey, and Freeman (2004), and in order to avoid implementation failure, a close examination of whether or not a program has actually been implemented “as intended” is required (p. 78). Therefore, fidelity of implementation must outline how well a program is executed through a comparison between the original intervention design and the exactness and quality of the actual implementation in order to establish validity. Moreover, this evaluation plan provides findings of the differences in administrators’ psychological well-being among the LuminaSpark© workshop treatment and the active expressive writing treatment.

Research Questions

The evaluation will investigate three research questions respectively to address fidelity, transformative learning, and outcomes.

RQ1: As delineated by the intervention design, were the administrative and transformative learning objectives met adequately for the majority of participants?

- a) Was the professional development implemented as intended?
- b) Did the intervention deliver adequate dosage to transform perspectives as defined by Mezirow (1991)?

RQ2: What activities transformed participants’ perspectives as defined by King (2009)?

RQ3: Was there a difference in administrators’ psychological capital and well-being between the active expressive writing treatment, and the LuminaSpark© treatment?

- a) Did participants report increases in self-reflection and insight?
- b) What aspects of psychological well-being are influenced by participants’ involvement in the professional learning model?

Data Collection

This project uses a mixed methods approach and relies on an embedded design for data collection and analysis that combines the qualitative and quantitative data during interpretation to confirm conclusions (Creswell & Clark, 2007). The evaluation design uses an exploratory approach with three arms framed by pre-post questionnaire quantitative data: a) post-workshop data, b) qualitative writing artifacts, and c) focus group qualitative data to measure transformative learning factors.

Indicators. The indicators of this study include: a) administrators' self-awareness of their Underlying self, their Everyday self, and their Over-extended self through the LuminaSpark© inventory (Ensor, Brenstein, & Desson, 2013), b) the ability to speed-read individuals based on the LuminaSpark© framework, and c) to develop a common language among elementary administrators based on the LuminaSpark© terminology. Regarding Treatment B, indicators include: a) the ability to write reflectively for a sustained period of time, and b) administrators' self-awareness of their professional and personal worlds, and c) the degree of emotional engagement in writing. Both Treatments A and B are hoped to increase critical reflection skills to prime psychological capital (PsyCap) and psychological well-being (PSW). Research supports that increasing these measures will lead to increased pro-sociability and intention (Weinstein, Brown, & Ryan, 2009).

Effect Size. Smyth's (1998) research synthesis of 19 expressive writing controlled studies determined an overall effect size and significance level for the expressive writing task as designed by Pennebaker (1989). The meta-analysis reported a mean weighted effect size across all the studies of $d = 0.47$ that was significant at the $p <$

.001 level (Smyth, 1998). According to Smyth (1998), this represents a 23% mean improvement in the treatment group over the control group. In addition, the number and length of writing sessions, and the time period over which the writing took place was not related to psychological well-being effect sizes in the studies.

Furthermore, psychological well-being outcomes had higher effect sizes than the effect size for reported health outcomes (Smyth, 1998). Since this pilot uses Pennebaker's (1997) expressive writing paradigm to foster reflection skills, the effect size based on Smyth's (1998) meta-analysis will be adopted, and the duration and time period of writing will be determined without influencing the effect size.

Formulaically, using the above mentioned effect size $d = 0.47$, which is moderate according to Cohen's effect size norms, along with the conventionally and statistically significant 0.05 alpha level and the standard power of adequacy level $(1 - \beta) = 0.8$, results in a sample size of approximately $N = 116$. The probability of a false positive (Type I error) is reduced to 5% or less by using the conventional alpha level of 0.05, and "relaxing alpha levels does not generally yield dramatic increases in statistical power" (Lipsey & Hurley, 2009, p. 51). In addition, using the standard power of adequacy level reduces the likelihood of a false negative (Type II error) to 20% (Lipsey & Hurley, 2009). Due to limited resources, this pilot uses a small sample size, $n = 20$. Although this represents 9% of the elementary administrator population in the region, this pilot's statistical power needs to be bolstered through internal design factors.

Fidelity of Implementation

In order to evaluate program fidelity, service utilization and program organization must be measured (Rossi, Lispey, & Freeman, 2004). Service utilization looks at what

the target sample received in conjunction with the intended design, while program organization addresses three questions focusing on the appropriateness of the target population, service delivery, and resource allocation (Rossi et al., 2004).

Indicators of fidelity of implementation. Dusenbury, Brannigan, Falco, and Hansen (2003) break down the evaluation process into five specific components: (a) adherence, (b) dose, (c) quality of program delivery, (d) participant responsiveness, and (d) program differentiation. In order to create a high single construct-level score of fidelity, a few *Adherence, Dose, and Quality of Program Delivery* indicators that align with the logic model, demand high levels of implementation.

The LuminaSpark© inventory completion and workshop attendance indicators measured at the onset of the intervention, are indicators that carry greater weight in the study because participation in the treatment require the information and experience. Specifically, by adhering to the LuminaSpark© inventory instructions, participants will receive their LuminaSpark© portrait, which guides their entire workshop experience. Furthermore, the workshop quality will develop common knowledge and language among participants. Most importantly, the psychometric tool being used in the intervention is deemed reliable and valid (Ensor, Brenstein, & Desson, 2013). This measure has already been confirmed through previous studies and immediately increases fidelity.

Furthermore, Monitoring Information Systems (MIS; Rossi, Lipsey, & Freedman, 2004) will be used to measure the adherence to the expressive writing expectations and the dose of the sessions, which includes the writing duration expectation of 15-20 minutes of free-flow writing in response to a reflective prompt. These measures, collected

digitally, will validate the expected participation and the exactness of execution in both treatment groups. Since this is an efficacy-type study with fidelity measures guiding the improvement process, program organization indicators including adherence to the workshop outline, measurement of the adult learning components, and participant engagement levels, demand medium performance.

Using a checklist, I will monitor what components are completed by the LuminaCanada© practitioner in the allotted five-hour workshop. This will serve to inform future timelines, and can be compared to the post-workshop participant survey data to determine transformative effect of activities. To further identify which activities contributed to perspective transformation for participants, as outlined in the Transformative Learning Theory, the Learning Activities Survey (LAS; King, 2009) will be completed through Focus Group Interviews at the completion of the intervention. In addition, being able to identify what transformative learning components are completed, as intended in the intervention design, will require a pre- and post-intervention checklist, thereby establishing congruency with previous research evidence (Rossi, Lipsey, & Freeman, 2004).

Lastly, participants' self-reported engagement levels in relation to all the activities throughout the intervention will be measured using the Learning Activities Survey at the end of the intervention to determine activity effectiveness (LAS; King, 2009), and observation field notes, created by research assistants during the workshop, will be used to measure participants' reactivity to the practitioner's facilitation.

This process evaluation plan provides critical fidelity information about the program performance and participants, and defines adequate implementation as

corresponding to “high” fidelity as outlined above. Using a formative focus, this threshold results in effective feedback and data that will be used by the research design team in establishing generalizability for further implementation within the region and beyond.

Transformative Perspectives

Transformative learning occurs when an adult experiences disequilibrium in their values, beliefs and understandings of themselves and/or the world around them (King, 2009).

As Kroth and Cranton (2014) identify that “good theory can stimulate a number of research threads that often lead to promising theoretical inquiry”, which is what Mezirow’s (1975; 1991; 2000) work did (p. 6). Consequently, it makes sense after three decades of development that an integrative theory of transformative learning is established and used based on scholars’ various perspectives of the theory. Kroth and Cranton’s expanded definition reads (p. 9):

Transformative learning is a process by which individuals engage in the cognitive processes of critical reflection and self-reflection, intuitive and imaginative explorations of their psyche and spirituality, and developmental changes lead to a deep shift in perspective and habits of mind that are more open, permeable, discriminating, and better justified. Individual change may lead to social change, and social change may promote individual change.

Clearly, transformative learning is a constructivist theory, and such learning can occur in formal and informal situations, often without being named or recognized as transformative learning.

Mezirow's (1981) original stages of perspective transformation prompted King (1997) to create a Learning Activities Survey (LAS) to identify perspective transformation. The LAS (King, 1997) identifies whether participants have had a perspective transformation in relation to the learning experience(s) and determines what learning activities contributed to the perspective transformation.

Measured Outcomes

According to Leviton and Lipsey (2007), researchers must move away from an oversimplified a-theoretical 'cause-and-effect' evaluation approach and embrace the complexities of several variable interactions and complicated causal processes including individual participant reactions and all potential positive and negative outcomes (p.33). Subsequently, this study is a mixed-methods exploration to address administrators' relational depletion by priming self-awareness using a valid and reliable psychometric tool called the LuminaSpark© (Ensor, Brensetein, & Desson, 2013) and digital expressive writing experiences (Pennebaker, Mehl, & Niederhoffer, 2003). Leviton and Lipsey's (2007) approach to complexity requires clearly articulated anticipated outcomes including interrelationships, which is outlined in the logic model in the previous chapter. In creating the causal diagram to depict the processes between the identified variables and their interrelated connections, this researcher used a Backward Design framework (Wiggins & McTighe, 2005) to scrutinize the complexity of this socio-emotional intervention, and to operationalize the variables.

Accordingly, the long-term theoretical outcome of this study is to grow high quality connections (HQC; Dutton & Heaphy, 2003) between administrators and teachers. However, this is a nonlinear dynamic that Fredrickson and Joiner (2002) refer to

as the upward spiral of human flourishing. To focus on HQC would be synonymous with Leviton and Lipsey's (2007) 'minimalist black box paradigm' using 'molar treatment' (p. 32). To break down such a broad and immeasurable treatment, the researcher identified that HQCs require individual mindfulness. Mindfulness, as operationalized by Hoy, Gage, and Tarter (2006), "is a continuous scrutiny and refinement of expectations based on new experiences, appreciation of subtleties of context, and identification of novel aspects of context that can improve foresight and functioning" (p, 238). However, in order to refine expectations based on new experiences, as quoted above, there must be an increase in self-awareness (Nesbit, 2012). Furthermore, mindfulness is a pre-cursor to establishing trust factors of benevolence, openness, honesty, reliability and competence (Tschannen-Moran and Gareis, 2015). From a common-sense standpoint (Leviton & Lipsey, 2007), the proposed intervention hypothesizes that the treatment of the LuminaSpark Portrait© and the treatment of expressive writing practices will prime self-awareness and psychological capital (PsyCap) of hope, optimism, resilience and efficacy to ignite psychological well-being.

Data Sources and Analysis

Quantitative Data

The quantitative strand includes a pre-post survey to measure changes in participants' self-awareness, defined by Grant, Franklin, and Langford (2002) as having two considerations: a) self-reflection and b) an internal state of awareness. In addition, participants' psychological well-being measured by sub-constructs of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth (Ryff, 1989), along with the psychological capital sub-constructs of

hope, optimism, resilience, and efficacy are embedded in the pre-post survey (Luthans, Avolio, & Avey, 2007). The reality of limited time makes a within-subject pilot approach appropriate with a pretest-posttest method (Shadish, Cook, & Campbell, 2002). Findings will be determined through descriptive statistics.

Qualitative Data

Previous researchers have supported language as a ‘bridge to reality’ with word use identified as a “meaningful marker and occasional mediator of natural social and personality processes” (Pennebaker, Mehl, & Niederhoffer, 2010, p. 548). More recent studies, including Pennebaker and King’s (1999), examination of multiple bodies of text, concluded that “word use in written language emerged as reliable across time, topic and text source” (p. 555). The LIWC2015 is enumerative coding text analysis software with two components: a) the processing component, and b) the dictionary component. The processing feature opens any variety of text files and then filters through each file word by word. Each word in the inputted text file is compared with the dictionary file. Once each word has been analyzed, which sometimes results in being counted in more than one category (e.g. “it” is a function word, a pronoun, and an impersonal pronoun), the categories are then calculated into percentages. As outlined in Pennebaker, Boyd, Jordan, and Blackburn’s (2015) reference paper for the LIWC2015, the default dictionary, which was used in this analysis, is composed of approximately 6,400 words, word stems, and select emoticons (p. 2). Each data record includes:

- i. File name
- ii. Word count

- iii. 4 summary variables (clout, authenticity, emotional tone, analytical thinking)
- iv. 3 general descriptor categories (words per sentence, percent of target words, and percent of words longer than six letters)
- v. 21 standard linguistic dimensions (e.g. pronouns)
- vi. 41 word categories reflecting psychological constructs (e.g. affect, drives)
- vii. 5 informal language markers (e.g. swear words)
- viii. 12 punctuation categories

The qualitative artifacts in this study include the expressive writing (EW) treatment samples, the post-Lumina workshop feedback, and the closing focus groups which will be transcribed, reviewed, coded, and analyzed. As shown in Table 4.2, which is a summary matrix of the evaluation indicators, definitions, and data sources, the descriptive coding framework for the samples include preliminary Wordle analysis, which then will move into structured coding using the survey variables and antonyms, and conclude with magnitude analysis using the LIWC2015.

Strengths and Limitations of Design

By addressing the distribution of the sample and plausible extraneous variables, and the threats to validity through effectual intervention design, this pilot's 'signal' is increased and the 'noise' is decreased, thereby influencing the 'signal to noise' ratio and strengthening the potential magnitude of the program effect (Lipsey & Hurely, 2009; Rossi, Lipsey, & Freeman, 2004).

Sample Distribution and Extraneous Variables

In order to increase the pilot's statistical sensitivity, or the 'signal to noise' ratio, multiple individuals are randomly assigned ($n = 10$) to the two treatments groups. This distribution method diminishes the probability of participants' characteristics co-varying with the cause changes in the value of the dependent variable, thereby increasing internal validity (Shadish, Cook, & Campbell, 2002). To further eliminate plausible extraneous variables, each participant's age, gender, position-of-added-responsibilities (PAR) positions, and tenure, are all identified as controlled variables. Additionally, the randomization procedure reduces selection bias and decreases the plausibility of all the other threats of validity except for attrition and testing effects.

In order to monitor attrition and testing effects, close examination of the pretest psychological capital data (PsyCap; Avolio, Luthans, & Avey, 2007) will be monitored across groups, particularly for those who do withdraw, to avoid artificially inflating conclusions (Rossi, Lipsey, & Freeman, 2004). Also, even though exposure to the pre-test could affect posttest taking, the four-week time-between-measures reduces the possibility of such 'practice testing' (Shadish, Cook, & Campbell, 2002), and the qualitative data cross-validates or corroborates quantitative findings resulting in concurrent triangulation of data (Creswell, & Clark, 2011).

Validity and Reliability

Continuing with the 'signal to noise' ratio analogy (Lispey & Hurley, 1998), the 'noise' in the statistical power is further decreased in this pilot through strong instrument validity and reliability of the LuminaSpark© inventory (Enser, Brenstein, & Desson, 2013). Innovatively, the LuminaSpark© inventory does not use forced-choice, but

measures individual traits on a continuum (Enser, Brenstein, & Desson, 2013).

Consequently, this is a ‘validity of change’ measure and not just an indicator of a single characteristic. This measure is required to support statistical conclusions (Lipsey & Hurley, 1998). As shown in Table 4.3, all data sources used to construct the pre-post survey feature a continuum measurement, which increases the validity for change, and more specifically, statistical sensitivity.

Ultimately, construct validity requires that variables be clearly operationalized especially breaking down meta-constructs like psychological well-being into different sub-constructs. As shown in Table 4.3, all indicators for this pilot are broken down into definitions using reliable and valid data sources. Also, factorial validity for the LuminaSpark© model concluded that all 24 qualities loaded strongly onto its associated factor. For example, all Introverted and Extraverted qualities clustered under one factor (Enser, Brenstein, & Desson, 2013). Furthermore, qualitative data collection helps to address the mono-method bias embedded in the self-reporting structure of the inventory and pre-post survey.

In conclusion, this proposed outcome evaluation plan with the design factors outlined above and the statistical sensitivity, based on Smyth’s (1998) effect size, increases the plausibility of a significant program effect: an identifiable ‘signal’ with minimal ‘noise’ (Lipsey, & Hurely, 1998; Rossi, Lipsey, & Freeman, 2004).

Table 4.3

Evaluation Summary Matrix

Indicator	Role of Indicator	Data Source	Definition	Responsibility
Pre- and Post-Intervention Measures (QUAN – survey)				
Self-reflection and Insight (SR-IN) Tools: LuminaSpark© Expressive Writing	IV	Grant, Franklin, & Langford, 2002) - 20 items closed questionnaire using 5-point Likert scale (1 = strongly disagree, 5 = strongly agree)	A scale to advance Fenigstein, Scheier, and Buss' (1979) <i>Self-consciousness Survey (SCS)</i> 23 items rated on a scale of 0 (extremely uncharacteristic) to 4 (extremely characteristic). “The existence of self-directed attention, as a result of transient situational variables, chronic dispositions or both” (p. 522) It is an assessment of three forms of individual self-consciousness: (a) private SC, (b) public SC, and (c) social anxiety.	Participant
Psychological Well-being	DV (Outcome Variable)	Psychological Well-being Inventory (PWB; Ryff, 1989). - The shorter inventory has 14 questions per dimension measured on a 6-point Liker-type scale (Harrington & Loffredo, 2010).	PWB measures well-being through six dimensions: a) Self-acceptance – one's level of self-approval b) Positive relations with others – one's satisfaction with one's interpersonal connections c) Autonomy – the amount of one's self-determination d) Environmental mastery – perceived control over one's environment, e) Purpose in life – perception of meaning in life, f) Personal growth – amount of growth as perceived by the test taker.	Participant

<p>Psychological Capital (PsyCap)</p> <p>** Use of all four factors – Research indicates <i>composite factor</i> as a better predictor of performance (Luthans, Youssef, Sweetman, & Harms, 2013)</p>	<p>Mod V Influences the strength of a relationship b/w two other variables</p>	<p>PysCap Questionnaire (PCQ; Luthans, Avolio, & Avey, 2007).</p> <p>- 24 items using 6 point Likert scale Including “How do you think about yourself right now?”</p>	<p>Hope: Being resolute in pursuing goals, hopeful employees tend to be risk-takers and look for alternative pathways when the old ones are blocked (Snyder, 1994, 2002, p. 257).</p> <p>Optimism: Optimists take credit for favorable events in their lives, strengthening their self-esteem and morale, which in turn may lead to greater engagement (Lyubomirsky, Tkach, & DMatteo, 2006).</p> <p>Resilience: Positive coping and adaptation in the face of significant risk and adversity (Masten & Reed, 2002).</p> <p>Efficacy: “The employee’s conviction or confidence about his or her abilities to mobilize the motivation, cognitive resources or courses of action needed to successfully execute a specific task within a given context (Stajkovic & Luthans, 1998, p. 66).</p>	<p>Participant</p>
QUAN – qual – LuminaSpark© Workshop Feedback				
<p>Lumina Portrait© = Individual Personality knowledge of: a) Underlying self, b) Everyday self, and c) Overextended self</p>	<p>Mod V</p>	<p>LuminaSpark© psychometric 144 question inventory</p> <p>1) Post-workshop Survey - Participants’ self-reporting of knowledge acquisition.</p> <p>2) Participant’s workshop engagement measured using checklist.</p>	<p>Self-reporting Inventory: Based on popular trait theory including Big Five research (Costa & McCrae, 1997) and Jungian theory</p> <p>The inventory measures the intensity of the each quality. There are eight polar Aspects: discipline driven – Inspiration driven Outcome focused – People focused Extraverted – intervention Big picture thinking - inspiration driven</p> <p>Three Qualities</p>	<p>Participant Research Team Lumina Canada© Practitioner</p>

			connected with each Aspect totally 24 Qualities each measured by six questions in the inventory = 144 questions. Workshop: Facilitated by LuminaCanada© practitioner.	
QUAL – Expressive Reflection Writing and Focus Group Interviews				
Linguistic Inquiry and Word Count (LIWC; Pennerbaker, Booth, Boyd, & Francis, 2015).	Med V - explains the relationship between two other variables.	Reflection: Analytical thinking Clout Authenticity Emotional tone	- First person treatment measured though pronoun search	Research Team members
Transformative Learning Focus Groups Interviews	MedV - explains the relationship between the two variables	King (2009)	The goal of the focus group aligns with King's (2009) evolving research in transformative learning. As with children, important shifts and changes occur when adults learn new things. These interview questions are designed to better document the powerful role that context plays in adult learning and to gather specific information as to what stimulated and contributed to the learning within the intervention experience. This is semi-structured and, when used as a guide, will provide the opportunity for follow-up based on responses.	Research Team Participants
Control Variables				
Age Gender PAR Position Tenure	Control Variables	Pretest survey: data collection	Age: 25-35, 35-45, 45-50, 55+ Gender: Male/Female PAR Position: Vice principal/Principal Tenure: (as administrator) New 0-2 yrs., 2-5 yrs., 5-8 yrs., 8-12 yrs., 12-15 yrs., 15-20 yrs., 20+	Participant

Chapter 5: Findings and Discussion

This two-treatment research project was implemented to explore a leadership development intervention to influence 17 elementary school administrators' self-awareness: a component of authentic leadership (Walumbwa et al., 2008). One treatment intervention included the LuminaSpark© inventory, portrait, and workshop while the second treatment included six expressive writing experiences. Methodologically, each participant's Psychological Well-being (PWB; self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth), Self-reflection and Insight (SRIS), and Psychological Capital (PsyCap; hope, optimism, resilience, efficacy) were measured pre- and post-treatment.

Process of Implementation

A mixed-methods design was used to investigate three research questions focusing on fidelity of implementation and outcomes as outlined below:

RQ1: As delineated by the intervention design, were the administrative and transformative learning objectives met adequately for the majority of participants?

RQ2: What activities transformed participants' perspectives as defined by King (2009)?

RQ3: Was there a difference in administrators' psychological capital and well-being among the active expressive writing treatment and/or the LuminaSpark© treatment?

Recruitment

Through third-person recruitment, using the HIRB approved telephone script, 18 elementary administrators in the Waterloo Region volunteered to participate in the study. They completed an online Google form (goo.gl/kLmeva) expressing their intention to participate and provided personal email and phone contacts. Upon registration, each

individual was assigned an identification number beginning with 2016_001 through to 2016_018. One male participant (2016_011) withdrew from the study before the consent and pre-questionnaire were distributed, and expressed that he was not able to find the time to participate. Odd numbered participants were assigned to the LuminaSpark© treatment (A; $n = 8$) while even numbered participants were assigned to the Expressive Writing treatment (B; $n = 9$); establishing a total of 17 participants ($n = 17$).

Using the Qualtrics platform for survey creation and distribution, participants confirmed their participation by completing the approved online consent form, as shown in Appendix B, before completing the pre-questionnaire. Of the 17 participants, seven were principals and ten were vice-principals, revealing a representative mix of roles in positions-of-added-responsibility (PAR). The total sample was approximately 10% of the present elementary administrators in the Waterloo Region. All 17 of the volunteers consented to participate.

Sample

After completing the Attribute coding (Saldaña, 2009) of the collected pre-questionnaire quantitative data, as indicated in Table 5.1, there was an even distribution of administrators' across tenure (years in administration) with 48% having two to eight years of experience while 30% had eight to 15 years of experience. In addition, 59% of the participants were between the ages of 45 to 50 years of age. Due to the volunteer recruitment design, only one participant had 15 to 20 years tenure while three participants were new to the role with less than two years experience. There were more female than male participants with 14 being female and three being male, which did not reflect the 2:1 provincial gender demographic for elementary administrators. Furthermore, all

participants had completed the mandatory Principals' Qualification Program II and I offered by the Ontario Principals' Council (OPC), and all participants are school administrators in the elementary division K-8.

Table 5.1

Sample Gender and Tenure Attributes

Tenure	Female		Male	
RAR Positions (Positions of added-responsibility)	Vice-principal	Principal	Vice-principal	Principal
New to 2 years	3	-	-	-
2 to 5 years	2	1	1	-
5 to 8 years	1	1	1	1
8 to 12 years	2	1	-	-
12 to 15 years	-	2	-	-
15 to 20 years	-	1	-	-

All 17 participants completed the online pre-questionnaire by November 17, 2016 and the two treatment groups were launched: a) the LuminaSpark© inventory and workshop, and b) the six online expressive writing sessions, all of which were completed within the following three weeks as outlined in the design.

Treatment A - LuminaSpark©

Eight LuminaSpark© participants completed an online 144-question psychometric inventory that produced a personalized 72-page Lumina portrait outlining their three personae: a) Underlying self, b) Everyday self, and c) Overextended self. The portraits were distributed at the workshop on Saturday, November 19 at 4 Willow St. Waterloo, Ontario.

LuminaSpark© portrait. The approximately 70-page portrait document outlines the individual's four colours, eight aspects and 24 qualities based on Jungian and the Big 5 personality trait theory (Costa & McCrae, 1997). Within the portrait were worksheets to

assist each participant in synthesizing the material and eventually setting a G.R.O.W.S. goal. The acronym stands for: G=Goal, R=Reality, O=Options, W=Way forward, S=Support, which supports the underlying color psychometric theory of the LuminaSpark© model. In addition, each LuminaSpark© portrait contains a Quick Response Code (QR code) on the back page of the portrait that can be scanned into the LuminaSplash© Application on a personal device. Once the QR code is scanned, the individualized Lumina Splash is visible and can be used according to the application. Other participants' QR codes can also be scanned producing a Splash Gallery, which allows the owner to compare their LuminaSplash© with others. This is a valuable tool that can be used when working in teams by providing concrete actions/suggestions about how to work with individual differences; supporting Lumina Learning©'s four principles a) self-awareness, b) valuing diversity, c) building rapport, and d) co-creating results.

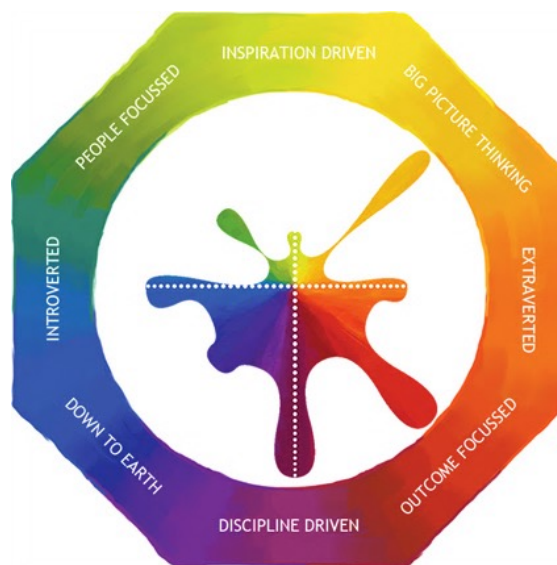


Figure 5.1. The LuminaSpark© Splash is a colorful mandala image, based on valid and reliable personality trait theories, is created through the online inventory responses and used throughout the LuminaSpark© portrait and experience.

LuminaSpark© workshop. All eight participants in the LuminaSpark© treatment attended the full day (five-hour) workshop facilitated by a Lumina Learning© practitioner resulting in 88% extremely satisfied with the experience. In addition, no participant indicated that they were dissatisfied with any component of the workshop. As outlined in the detailed field observation notes, the following 12 workshop components were chronologically completed:

- i. Icebreaker: Self-awareness quotes
- ii. Four-color cards - Gifting activity
- iii. Four-color cards - Buy and sell activity
- iv. Lumina model overview
- v. Inner spark reading and circling
- vi. Four archetypes explanation
- vii. Three personae explanation
- viii. Eight traits explanation
- ix. Amplifications and suppressions
- x. Journey to composure
- xi. Speed-reading individuals
- xii. G.R.O.W.S. goal-setting

All participants completed a pencil-and-paper diamond-reflection sheet immediately following the workshop containing the following reflective prompts: a) I came expecting..., b) I received..., c) I wish..., d) An item of value..., and e) My next steps are. Once participants anonymously completed the sheets, they left them on a table for the research team to pick up for organization and analysis. Twenty-four hours later,

the post-workshop survey, as outlined in Appendix E, was distributed through Qualtrics and all participants responded electronically using ID numbers within 48 hours of receipt.

Treatment B - Expressive Writing (EW) Experiences

The nine expressive writing (EW) participants began their first writing experience on November 17th, 2016 and the final writing experience closed on December 10th, 2016. Table 5.2 outlines the time and location for each participant's six expressive writing experiences.

In total, nine participants digitally submitted 50 expressive written artifacts over the course of three weeks. Each expressive writing experience began with a prompt. Chronologically, the prompts used in each 15-20 minute EW digital experience were: a) an open-ended free-flow writing, b) an emotional upheaval, c) revisiting the emotional upheaval, d) a letter of gratitude, compassion or empathy, e) a descriptive paragraph of self in the next six months, and f) a legacy narrative, all based on Pennebaker and Evans (2014). Upon completion of the writing time, participants were asked four strategic reflective questions using a 100 point sliding-scale with markers of "Not at all", "Somewhat", "To some degree", and to "A great deal":

- a) To what degree did you express your deepest thoughts and feelings?
- b) To what degree do you currently feel sad or upset?
- c) To what degree do you currently feel happy?
- d) To what degree was today's writing valuable and meaningful for you?

Each participant had the opportunity to briefly explain his or her response.

Pre-and Post-questionnaire

All participants completed the online pre-and post-questionnaires. As outlined in Appendix F, the post-questionnaire was identical to the pre-questionnaire that was completed at the onset of the project (excluding the control variables of gender, tenure, age, and position) and after participating in their randomly assigned intervention.

Focus Groups

On Saturday, December 10, 2016, the research team members gave the attending participants time to prepare their responses to the Focus Group interview questions, as shown in Appendix G, and then proceeded to interview the treatment groups with three to four participants per group. Participants' completed written responses were collected from all participants except 2016_018 who was not able to attend due to a family crisis, participant 2016_008 whose wife was in labor at the hospital, and 2016_002 who was in meetings to open a new school within the district.

Preliminary Linguistic Framework

A preliminary linguistic analysis was completed to identify emergent themes in the qualitative data in order to frame the mixed-method data analysis measuring the fidelity of implementation and outcomes research questions. As Pennebaker, Chung, Frazee, Lavergne, and Beaver (2014) expressed, "The ways we use words reflect how we think" (p. 1), and it has been further defended that features of language and word use can be counted and statistically analyzed. To support this reflection, according to McNaught and Lam (2010), word clouds/clusters can be used for preliminary analysis of qualitative data to show the most frequently occurring words/ideas of importance. This helps to highlight "main differences and possible points of interest, thus providing a direction for

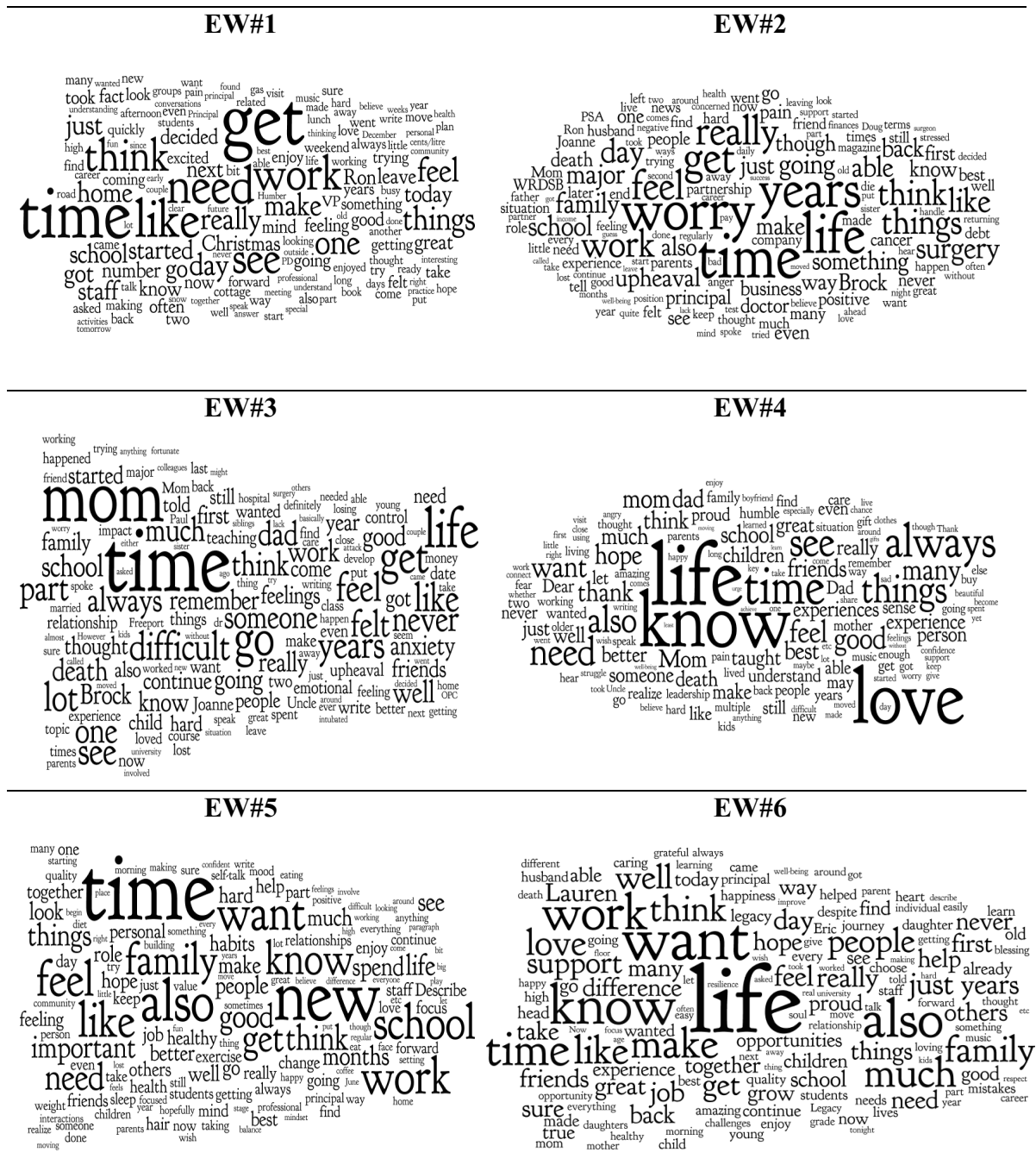
detailed analysis”, and can also be used to confirm findings (p. 631). In the preliminary linguistic analysis of the qualitative data sets, it was found that the use of word clouds gave fast and preliminary understanding of participants’ foci in each treatment.

Emerging Expressive Writing (EW) Themes

After the basic text cleaning, as recommended in Pennebaker, Booth, Boyd, and Francis’ (2015) Operator’s Manual for the LIWC2015, Table 5.2 illustrates the word clouds of each EW experience submitted by the nine participants over the three-week period.

Table 5.2

Word clouds of Each EW Experiences - Full Text



An initial examination of the six word clouds in Table 5.2 suggested that, regardless of the various EW prompts, ‘time’ thematically resurfaced as did ‘life’, ‘work’, ‘know’, and ‘feel’. In addition, the expressions of feelings are juxtaposed against the

mention of work with participants repeatedly using several words including ‘love’, ‘death’, ‘pain’, ‘care’, and ‘worry’. The personal concern of ‘work’ permeated all six EW experiences’ artifacts. Even though several participants did write in-length about the death of a loved one, approximately double the amount of words used in the EW participants’ writing was on work. When prompted to write about an emotional upheaval in EW#2, financial concerns arose, however, when goal setting for an ideal self in EW#4, ‘leisure’ emerged as the highest percentage of ‘personal concern’ words written. This suggested a potential conflict between self-idealism with the desire for leisure struggling against the demands of time and work.

Emerging LuminaSpark© Themes

The word cloud output of both treatment groups’ raw qualitative data indicated that participants’ expressed repeated ideas and thoughts regarding ‘time’ and found the intervention experiences personal; with a focus around school, work, and learning. Figures 5.2 and 5.3 are word clouds of the two treatment groups’ qualitative data with Figure 5.2 being the full text of the 50 expressive writing (EW) artifacts and Figure 5.3 being the post-workshop reflective responses.

wrote in their next steps, “Working on spontaneity (us reliable types can become drudges). Showing more empathy at home”. In addition, both treatment groups’ word clouds coincide with the LIWC2015 text analysis and suggested a strong focus on ‘work’ with 2.5% to 3.5% of words used in the writing artifacts referencing ‘work’. This continues to support the most recent Ontario elementary administrators’ workload intensification studies that were outlined in Chapter 4: Literature Review within which workload was identified as having increased over the past decade (Liethwood and Azah, 2014; Pollock, 2014).

Findings

Three research questions were explored during the analysis of each treatment with the first question addressing the fidelity of implementation:

RQ1: As delineated by the intervention design, were the administrative and transformative learning objectives met adequately for the majority of participants?

a) Was the professional development implemented as intended?

b) Did the intervention deliver adequate dosage to transform perspectives as defined by Mezirow (1991)?

Fidelity of Implementation

Dusenbury, Brannigan, Falco, and Hansen (2003) endorse five indicators of fidelity of implementation: a) “strict adherence to methods and implementation that conform to theoretical guidelines” (p.240), b) quality of program delivery, c) participant responsiveness, and d) differentiation of program elements, and e) dosage and completeness of implementation. This study explores an intervention’s quality and how it meets outcomes, as initially outlined in Chapter 4, to explain its success and failure, and

identify required changes to the intervention for future feasibility and usage. Although it's not clearly supported in the research, according to Dane and Schneider (1998), it is recommended that all five fidelity measures be present in order for a program to achieve its goals (as cited by Dusenbury, Brannigan, Falco, & Hansen, 2003).

Adherence. All participants completed the pre- and post-questionnaires within the designated time parameters. Fifteen of the 17 participants completed the Focus Group interview questions through written responses, and all LuminaSpark© participants completed both the written reflection handout and the post-workshop survey through Qualtrics.

In order to produce a high level of fidelity, the Lumina practitioner adhered to the workshop outline as discussed and outlined in the Process of Implementation and as documented by the observers. Consequently, the post-workshop questionnaire reflected the components experienced and were measured by participants to determine quality of program delivery. In addition, the 9 EW participants submitted 50 of the 54 potential written artifacts as outlined in the intervention design within the designated timelines. Monitoring Information Systems (MIS), as Rossi, Lipsey, and Freedman (2004), digitally validated the completion of all artifacts within the designed time frame. These central elements confirm strong adherence to the implementation design as written in Chapter 4.

Dosage. Dusenbury et al. (2003) suggested measuring dose through attendance data for each participant, self-reports by instructors, and observations of curriculum covered.

Attendance. As outlined in the process of implementation, all 17 participants completed the online pre- and post-questionnaire. Regarding the EW participants, as outlined in Table 5.3, all were encouraged to write during the same time for each experience and in the same location. Four participants were able to do so. Five participants completed all six expressive writing experiences, while four participants missed one EW experience each. When asked why they were unable to complete that specific experience: “Too many other demands pressing in on their time” was the repeated response by the withdrawing participant. The concern of ‘time’ emerged throughout the preliminary word cloud findings and reflects Pollock’s (2014) and Leithwood and Azah’s (2014) work intensification studies’ findings that attempt to determine what professional responsibilities are eroding administrators’ time on the job.

As noted below in Table 5.3, two participants did not submit written artifacts for EW#4, which accounts for the decrease of approximately 1, 000 words in the word count. However, EW#1, 2, and 6 were completed by all participants and indicates that less words were written over time with EW#6 having approximately 1,000 words less than EW#1, but with approximately 94% of the words being in the LIWC2015 dictionary.

Table 5.3

Expressive Writing (EW) Participants' Recorded Time and Location

ID	EW#1		EW#2		EW#3		EW4		EW#5		EW#6	
Location/time												
2016_002*	Home Office	10:15 PM	Same	10:44 PM			Same	9:49 PM	Same	9:26 PM	Same	9:33 PM
2016_004	On my couch	9:30 PM	Same	7:36 PM	Same	8:00 PM			Basement	8:30 PM	Kitchen	9:10 PM
2016_006*	School office	4:00 PM	Same	1:00 PM	Same	3:45 PM	Same	3:45 PM	Same	11:00 AM	Same	4:00 PM
2016_008	School Office	8:25 PM	Home office	7:19 PM	School office	7:50 PM	Home office	8:00 AM	School office	3:45 PM	Home office	10:30 PM
2016_010	At home	8:30 PM	School office	2:27 PM	Family room	7:25 PM	Family room	10:45 PM			School office	3:00 PM
2016_012*	Home office	11:30 PM	School office	6:30 AM	Home office	7:00 AM	Home office	9:41 PM	Home office	10:35 AM	Home office	6:05 PM
2016_014	At home	7:30 PM	Same	9:58 PM	School office	6:05 PM			Living room	7:37 PM	Ed Centre	10:04 AM
2016_016*	Dining room	6:20 PM	Same	5:55 PM	Same	6:20 PM	Same	6:05 PM	Same X2	6:10 PM	Same	6:15 PM
2016_018	School office	12:16 PM	Home	9:20 PM	Home	9:54 PM	School office	1:22 PM	School office	3:07 PM	Home	8:58 PM

Note. The asterisk indicates the participants who wrote in the same location at approximately the same time for each EW experience.

As cited in Chapter 4: Data Sources and Analysis, the LIWC2015 computerized text analysis tool measures the percentage of words that correlate to valid pre-determined dictionaries within the tool (Pennebaker, Boyd, Jordan, & Blackburn, 2015). As illustrated in Figure 5.4 below, LIWC2015 measured the EW participants' 'personal concerns' including: a) work, b) leisure, c) home, d) money, e) religion, and f) death, in all 50 submissions across six EW experiences. Contextually, each 15-20 minute EW experience began with a designated prompt: a) EW#1 - an open-ended free-flow writing, b) EW#2 - an emotional upheaval, c) EW#3 - revisiting the emotional upheaval, d) EW#4

- a letter of gratitude, compassion or empathy, e) EW#5 - a descriptive paragraph of self in the next six months, and f) EW#6 - a legacy narrative, based on Pennebaker and Evans' (2014) work.

As illustrated in Figure 5.4, concern around 'work' permeated much of the writing experiences despite the fact that more than 33 of the 50 experiences were completed while in a comfortable setting at home and that the writing prompts were open-ended.

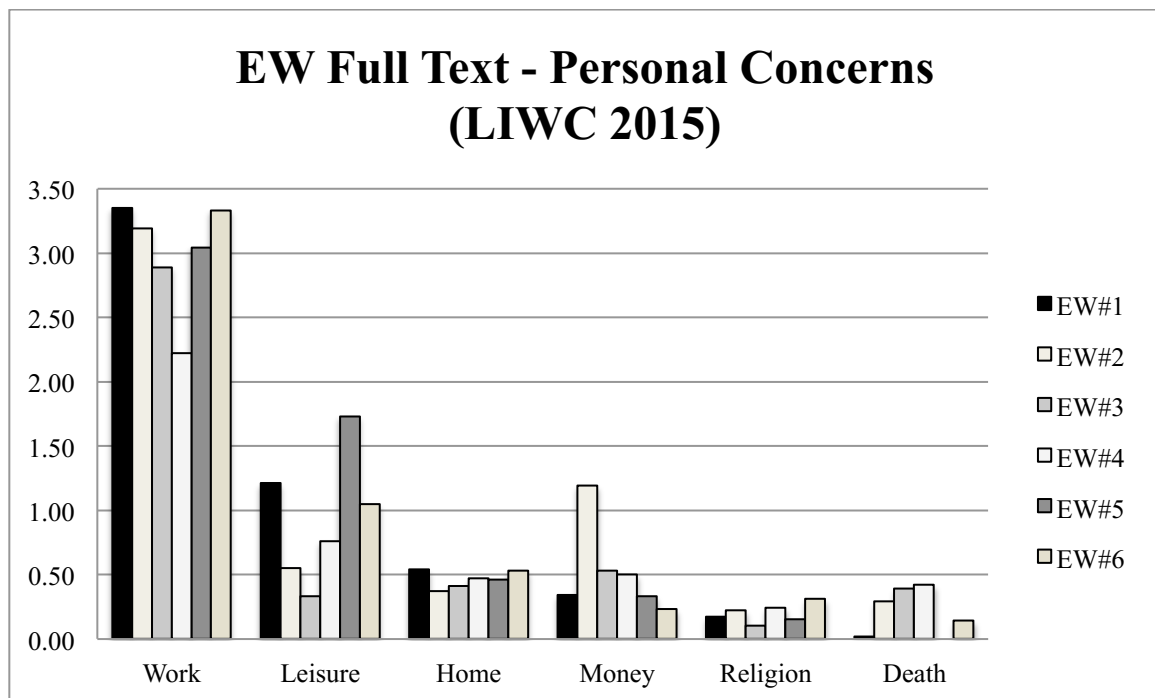


Figure 5.4. EW full text (LIWC2015)– Personal concerns using the linguistic analysis tool created by Pennebaker, Boyd, Jordan, and Blackburn (2015).

Instructor's self-reports. Due to the digital nature of the EW experiences, there were no lessons on how to write expressively or manage the Qualtrics. The Qualtrics platform sent a hyperlink to the participant's email that was then returned to the platform when completed. Only one incident occurred when an EW participant wrote for 15-20 minutes and then submitted it, but thought that it had not been saved. Consequently, she

wrote a second time and submitted the second experience as well. For purposes of authenticity, the first submission was included. As outlined in the Lumina practitioner's observations, the LuminaSpark© workshop participants shifted from an initial reticence to comfortable willingness to contribute, which allowed the experience to be highly personal with underpinnings of self-awareness emerging through group understanding and safety.

Observations of curriculum covered. Similar to the instructor's self-reports, the EW experience did not involve curriculum, rather the participants followed the same input pattern and time frame to complete each EW experience. In addition, each experience required a level of English language knowledge, but grammar and spelling were purposefully not to be attended to. This required cleaning of the EW data, but allowed creative freedom in participants' writing.

The LuminaSpark© participants were all in attendance at the workshop having completed the online psychometric inventory in time to produce their LuminaSpark© portrait. In addition, all eight participants completed the diamond-reflection at the end of the workshop and the post-workshop survey through Qualtrics. One LuminaSpark© participant shared they wished there was more time to develop the G.R.O.W.S. goal and to share it with others within the workshop to build accountability even if it meant making the workshop longer.

Quality of program delivery. The quality of the program delivery, using Dusenbury et al.'s (2003) definition, was assessed using both observations and self-reporting. Specifically, participants found the LuminaSpark© portrait to be an accurate reflection of their perceived-selves. This was indicated, as outlined in the LuminaSpark©

Field Notes in Appendix A, when the practitioner asked the whole group about the accuracy of the individual portrait after having distributed them and given some time to read during the workshop. Specifically, individual responses to the inventory accuracy question triggered three participants to spontaneously respond with “Bingo” while another participant laughingly said “Creepy Bingo”. The Lumina practitioner then asked for a percentage response from the participants, and they confirmed a perceived 95% accuracy level of the individual psychometric findings.

In addition, as outlined in Figure 5.5, most participants’ self-reported that the workshop was “extremely well” organized and engaged them. In addition, they indicated that there was clarity with objectives and opportunities to ask clarifying questions. Moreover, all participants indicated that the workshop facilitator was ‘very to extremely effective’. According to Dusenbury et al. (2003), these components are critical when establishing quality of delivery.

Post-workshop Feedback

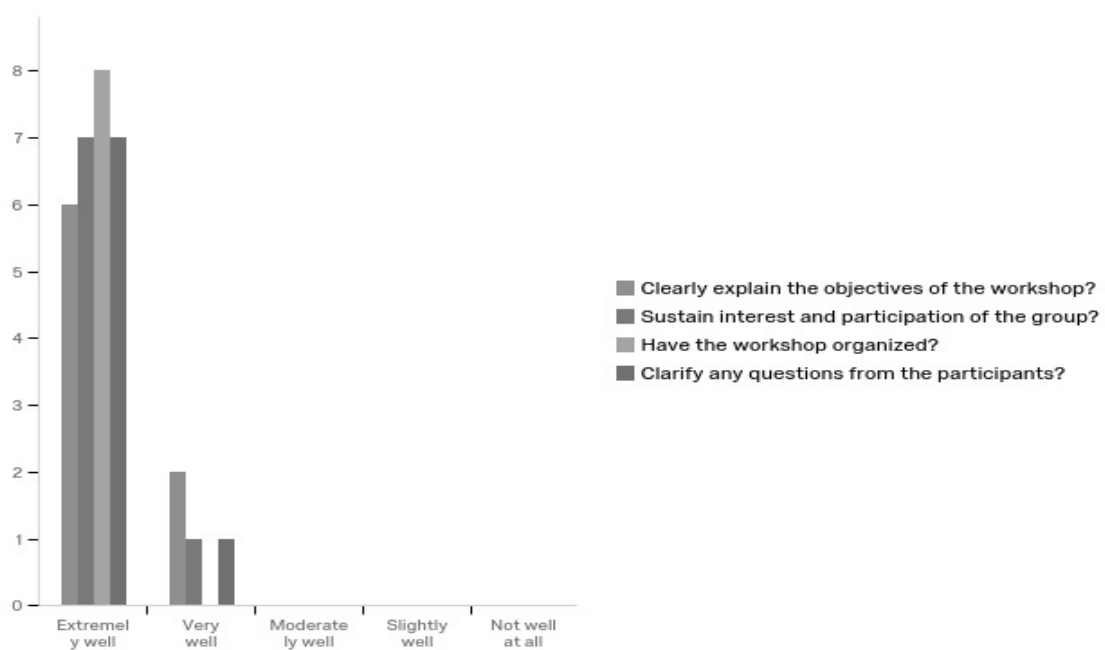


Figure 5.5. Post-LuminaSpark© workshop levels of self-reported satisfaction was completed by all LuminaSpark© participants and indicated an extremely high level of self-reported satisfaction with several factors.

Furthermore, 62.5% of the LuminaSpark© participants ‘strongly agreed’ that they would “recommend LuminaSpark© to other administrators”. Others commented, “I am interested in next steps i.e. Lumina Learning and Lumina Leadership. I would love to bring the program to my staff for PD” [2016_009]. Overall, as indicated in the initial word cloud preliminary analysis, the LuminaSpark© participants expressed that, “This was a great opportunity to deepen my understanding of specific areas of strength and areas to focus on improving. A wonderful tool to dig deeper into our personas. Thank you” [2016_015].

Regarding the EW participants, two EW participants reported in the Focus Group Interviews that they spent too much time “making sure the writing was well organized

into paragraphs...but that the prompts were so open-ended that one idea lead to another” [2016_010]. In addition, the accountability to complete the experiences, through reminder emails, was viewed as a positive motivator by one EW participant who called it the “drawing force” [ID 2016_014]. Lastly, as outlined in Chapter 4, the intervention design’s two treatments were found to be valid and reliable tools through previous research (Ensor, Brenstein, & Dessen, 2013).

Participant responsiveness. As illustrated in Figure 5.6, approximately 88% of participants in the Lumina Treatment group self-reported being ‘extremely satisfied’ with their experience and 12.5% were ‘moderately satisfied’. This indicates that 100% of the LuminaSpark© participants self-reported satisfaction with the experience. As one participant wrote, “I received confirmation of my strengths; validation that my challenges aren’t all that bad; and understanding that I can become more effective in my roles”.

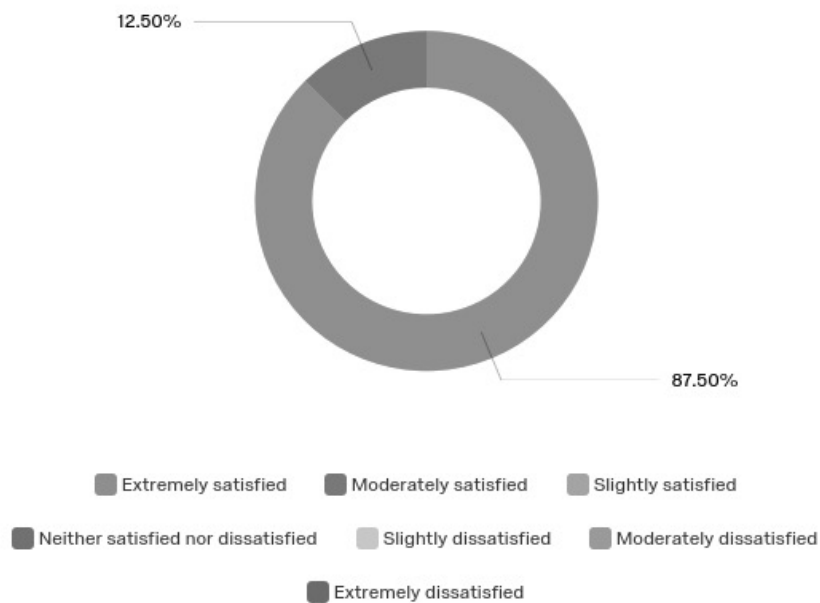


Figure 5.6. Post-LuminaSpark© workshop overall satisfaction suggests no participants were dissatisfied with the experience; all participants were moderately or extremely satisfied.

In addition, all LuminaSpark© participants confirmed that they had established “next steps” and one participant wrote, “My next steps are to reflect on my results and G.R.O.W.S. goal. Revisit the contents of the portfolio as I celebrate my strengths and challenge myself to grow in areas of need” [2016_001]. This aligns with Mezirow’s (1991) framework to address the ‘what’ of reflection that moves into the meta-level of the experience to shift behavior.

The EW participants did not have an opportunity, outside of the Focus Groups, to express a level of satisfaction and responsiveness with the experience, which is noted as a limitation in the study. However, a number of participants including 2016_010 wrote, in response to the inquiry “What did being in the project have to do with it [change of

perspective]?” and two factors influenced change: a) quiet time to be introspective, and b) accountability to write.

Program differentiation. Unlike instrumental learning, which focuses on task-oriented problem solving, the communicative learning in this intervention focused on participants understanding the meaning of what they and others communicate concerning values, beliefs, feelings, moral ideals and decisions. In order to identify immediate outcomes, requires an understanding of the unique features of these two different treatments within the communicative goals.

In communicative learning, the approach is one in which the learner attempts to understand what is meant by another through speech, writing, drama, art, or dance. Communicative learning is less a matter of testing hypotheses than of searching, often intuitively, for themes and metaphors by which to fit the unfamiliar into a meaning perspective, so that an interpretation in context is possible (Mezirow, 1991, p.9).

EW experiences required no collaborative engagement on the part of the participant. All participation was through digital means, whereas the LuminaSpark© participants’ experienced high social engagement through the workshop. This was evident by observers when all participants who attended the Focus Group Interviews gathered on December 10th. First of all, it was the same location as used for the workshop so LuminaSpark© participants were already familiar with the space. In addition, LuminaSpark© participants were already familiar with each other from the full-day workshop. This was displayed by the humor, warm greetings with hugs, and general conversation sustained by the LuminaSpark© participants before the Focus Group

session began. This was contrasted by the non-conversational, seemingly uncomfortable and uncertain postures of the EW participants even though they were also elementary administrators and familiar with each other. During one of the interview sessions with EW participants it was documented that “The group of three were quiet and seemed reluctant to speak. They waited for me [interviewer] to start and moderate the discussion even after I explained that I was there to observe”.

Furthermore, the experiential level of participation required by the LuminaSpark© participants at the workshop was a second differentiated component. Several times throughout the five-hour workshop, participants were invited by the practitioner to a 6X6 foot mandala mat, as illustrated in Figure 5.7, which mirrored what participants had in their portraits (as seen in Figure 5.1), to explore and synthesize their individual findings through reflective discourse and physical movement.



Figure 5.7. LuminaSpark© Splash 6X6’ Mat is used throughout the LuminaSpark© workshop.

In an interactive manner, the practitioner invited participants to move across the mat when synthesizing their personal Lumina portrait information. As outlined in the field notes, laughter and sharing produced a dialogic experience that allowed participants

to process their critical reflection; both key to transformative learning (Mezirow, 1991). When asked in the Focus Group interview questions, “Thinking back to when you first realized that your view/perspective had change: a) When did you first realize this change had happened? Multiple participants referred to the mat activities including sharing goals and the activity Journey to Composure as a point of changed perspective. Specifically, one participant [2016_005] shared “The workshop opportunity, the interactive and reflective nature of it” was the catalyst that changed their view/perspective. This leads into the sub-question of research question number one: Did the intervention deliver adequate dosage to transform perspectives as defined by Mezirow’s (1991)?

In transformative learning theory, which is a communication-based theoretical framework, adults integrate new information and shift perspective. Most importantly, perspective shifting requires metacognition and reflective practices on the personal and professional meaning of the new information as illustrated in Figure 5.8. This reflective multidisciplinary process is evaluative, which shifts beliefs and assumptions into a new outlook that then produces new behavior (King, 2004).

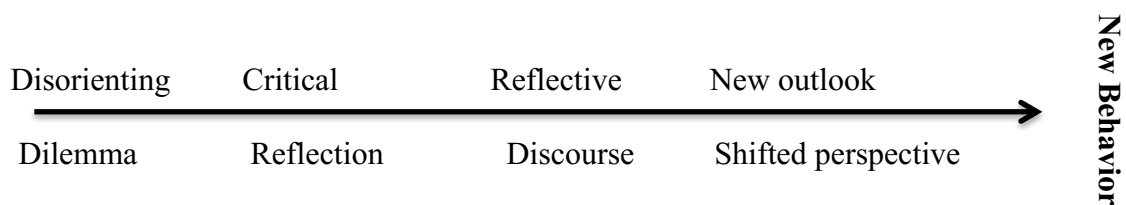


Figure 5.8. Transformative Learning model, as outlined by Mezirow (1991), captures the fluidity in learning beginning with a disorienting dilemma through to critical reflection and dialogue into a new outlook that produces new behavior(s).

Transformed Perspectives

Each participant entered into their treatment with preset assumptions, beliefs, and values gained through experiences. Collectively, this creates an environment with multiple personal realities: numerous habits of mind expressed in points of view (Mezirow, 1991). Consequently, there is potential for individual clashing of perspectives. It is at this point of internal conflict, also referred to as a “disorienting dilemma”, that transformative learning begins. This study explored the five components of transformative learning within the two treatments: a) disorienting dilemma, which leads an individual into, b) critical reflection, which tests personal presuppositions into, c) reflective discourse or dialogue, which presents opportunity to process and move into sense making, which c) revises assumptions to establish a new outlook, which d) results in new behavior(s). Using this framework, as outlined in Figure 5.8, assists in answering the second sub-question of the first research question.

Participants’ disorienting dilemma. A disorienting dilemma is a catalyst for shifting an individual’s perspective and is usually identified as an idea/belief/experience that does not fit an individual’s present understandings so they attempt to make sense of the experience, which usually involves a shift or change in perspective. Put simply, “perspective transformation explains the process of how adults revise their meaning structures. Meaning structures act as culturally defined frames of reference” (Mezirow, 1991, p. 6).

The context of this exploratory study is disorienting with elementary administrators continually struggling to navigate through school leadership expectations, which Leithwood, Patten, & Jantzi (2010) conceptualized as: a) the rational path, b) the

emotional path, c) the organizational path, and d) the family path, all of which require trust to cultivate open communication and commitment (Tschannen-Moran and Gareis, 2015).

However, the initial disorienting dilemma for the LuminaSpark© participants occurred when they received their portraits based on their responses to the 144 online psychometric inventory. The LuminaSpark© is highly personalized and goes beyond single trait theory, which tends to box people into a personality type. The LuminaSpark© inventory questions measure opposite ends of behavior polarity producing apparent contradictions in the different qualities that emerge (e.g. introversion and extraversion). These seeming contradictions are seen as strengths and this is called Embracing Paradox: being two things at one time, and this reflects Lumina Learning© valuing diversity within the individual. This unique feature of the tool avoids labeling and helps to measure an individual's uniqueness by producing and celebrating an individualized portrait through Embraced Paradox. Being able to personally embrace the portrait's accuracy and the paradox of contradictions requires a process, which is clearly established by the workshop format that moves participants into critical reflection, dialogue, and establishing a new outlook through goal-setting. As one participant [2016_013] shared during the Focus Group Interviews, "The Lumina portrait was very in-depth and I feel accurate. It made me see why I am good at what I do, but also what I can do to continue to improve as a person".

With the Expressive Writing (EW) participants, the disorienting dilemma was embedded in the writing prompts using a clear format for the writing experience with time measures of 15-20 minutes and freedom from grammar or spelling concerns.

Participants' critical reflection. Two frames interconnect in the transformational learning theory: a) habits of mind, which are the broad assumptions that individuals use to filter everyday experiences, and b) points of view, which tend to be more easily altered through critical reflection. Beginning with partial insights, participants moved back and forth between parts of the experience in search of meaning, and eventually discovered the metaphoric significance of the new experience within other contexts (e.g. home, work). As Mezirow (1991) references, this is a critical assessment of the process of problem solving, examining similarities and assumptions, and ultimately justifying convictions. For this assessment to be critical requires reflection of presuppositions (assumptions). Within this study, critical reflection focused on building self-awareness.

In the LuminaSpark© post-workshop feedback data, which used the traditional five Likert scale points (e.g. strongly agree, somewhat agree, neither agree nor disagree, somewhat disagree, and strongly disagree) across five questions with an opportunity to 'describe', six participants strongly agreed that the workshop increased "my understanding of myself" and the key issues related to working with staff, students, and parents. One participant wrote, "I feel that understanding myself and others better helps me to be more successful and effective in my roles as family member, friend, professional. I have a desire for others to share this frame as this understanding could build bridges" [2016_001]. In addition, all participants agreed that the workshop helped to build capacity to respond to the needs of staff and five strongly agreed and two agreed (out of eight) in recommending LuminaSpark© to other administrators.

The EW participants self-reported a gradual decrease in sadness throughout the writing experiences, which was juxtaposed against a gradual increase in the self-perceived value and meaning in the experiences as well as in self-reported happiness (See Figure 5.9). The initial writing experience, which was a free-flow activity with no guiding prompt [EW#1], was the least valuable and meaningful, while the gratitude experience [EW#4 prompt], was the most meaningful and had the highest degree of expression of emotion and thought. The final EW#6 that focused on legacy narrative writing was similarly valued and meaningful for participants.

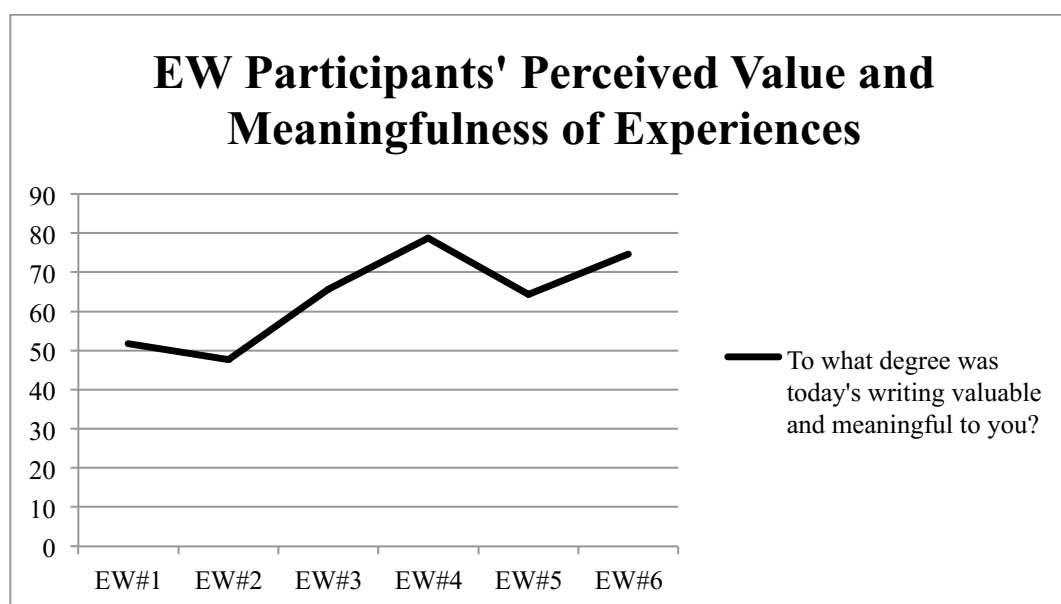


Figure 5.9. Average values of participants' reported perceived value and meaningfulness measurements were taken after each participant completed the writing task.

Specifically in Treatment B, EW participants' were asked in EW#2 to write about an emotional upheaval and then return and continue writing about that same upheaval in EW#3. As indicated in Figure 5.10, when asked how they felt after the initial writing experience, sadness was reported at 53.9 (out of a potential 100 points), which is the highest measure of sadness recorded throughout the experiences, and happiness was

reported at 38. However, when participants revisited the same upheaval in the next writing experience [EW#3] the degrees of negative and positive emotion completely shifted; sadness was reported at approximately 43 and happiness was self-reported at 55 degrees. This shift in understanding of meaning concerning ideas and feelings aligns with communicative learning (Mezirow, 1991). Also, one participant reflected, “Although it was uncomfortable at first, I think this was a good change for me...I need to take more time to reflect on my feelings and then communicate more openly with others” [2016_015].

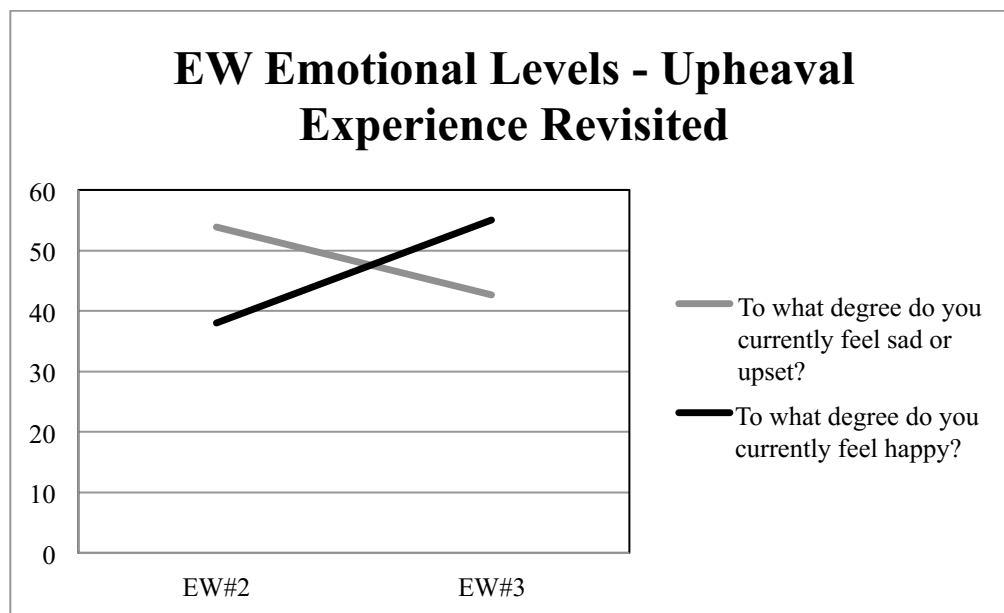


Figure 5.10. Average mean values of self-reported degrees of sadness/upset and happiness.

Furthermore, this emotional shift is supported by Pennebaker and Evans’ (2014) findings regarding psychological effects: sadness initially emerges and later shifts into happiness. As illustrated in Figure 5.11, the LIWC2015 data that measures positive and negative emotion linguistically supported this finding in its measurement of positive and negative emotion word-use.

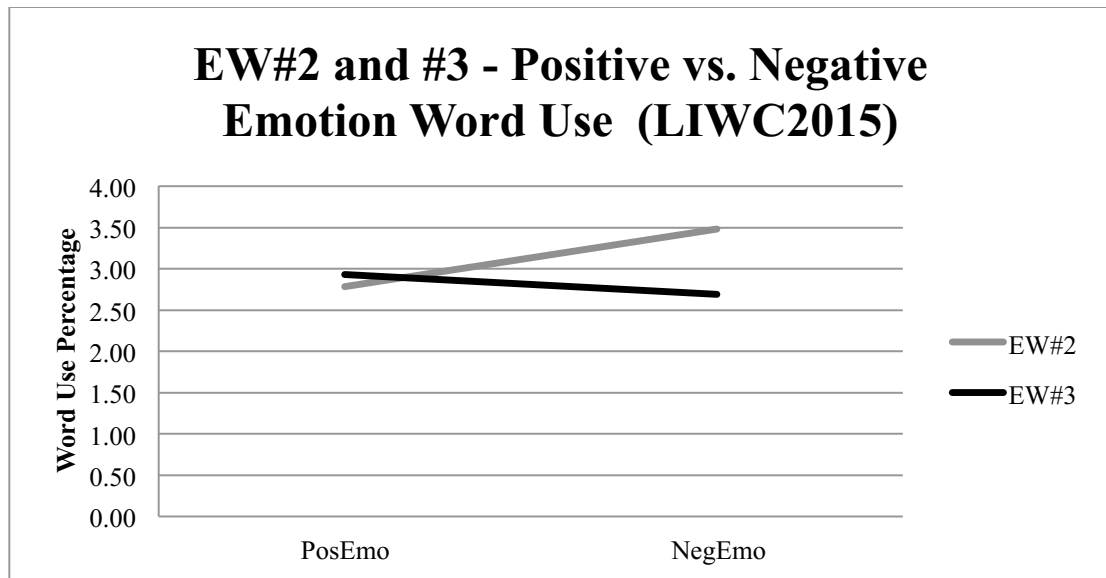


Figure 5.11. Average values of positive and negative emotion word use.

According to Pennebaker, Boyd, Jordan, and Blackburn (2015), as reflected in Table 5.4, the calculated ‘grand’ mean of positive emotion base rate word usage is approximately 3.7%, while the calculated grand mean of negative emotion is approximately 1.8% (p. 11). Both EW#2 and EW#3 were well above both grand means, thus establishing authenticity in the expression of the emotion and supportive of the emerging themes as outlined in Table 5.5.

Table 5.4

Base Rate Word Usage EW#2 and EW#3

Words Used	Base Rate Word Usage Percentage	EW#2	EW#3
Positive Emotion	3.7	2.7	2.9
Negative Emotion	1.8	3.5	2.7

Note. Pennebaker, Boyd, Jordan, and Blackburn (2015, p. 11)

At the center of critical reflection, the EW participants' self-reported levels of engagement, as illustrated in Figure 5.12, indicated that they expressed their deepest thoughts and feelings in each experience. Furthermore, participants self-reported the highest level of engagement (83.8%) in the final EW#6 experience that focused on legacy writing, while EW#2 (82.7%) and EW#3 (82.8%) were almost equal in measure.

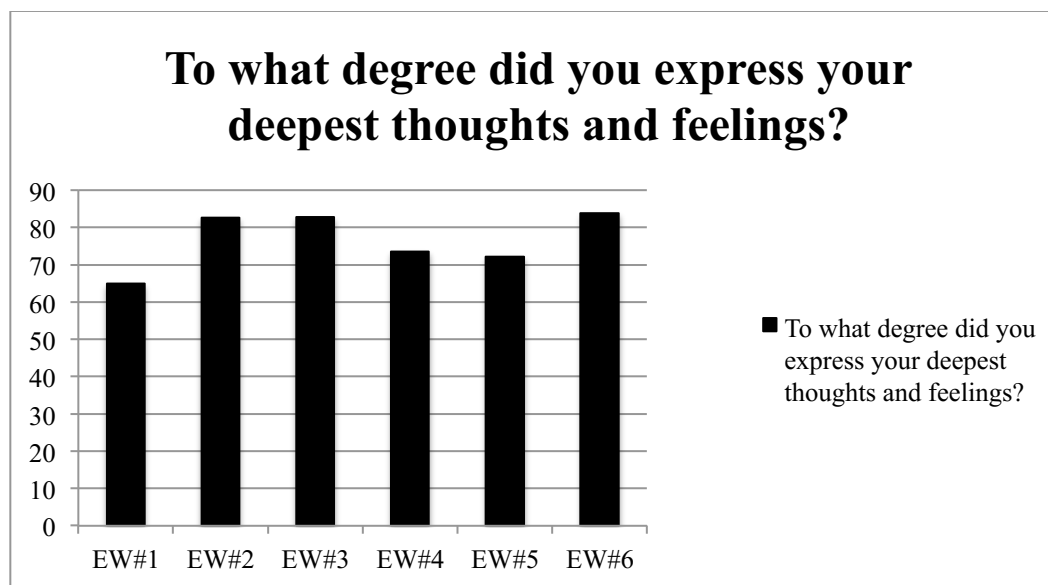


Figure 5.12. Participants' reported degrees of expressing deepest thoughts/feelings within 100 degrees.

Reflective discourse. There was no opportunity for the Expressive Writing participants to move into reflective discourse until they came together for the Focus Group interviews. When they did come together, it took time to open up in conversation based on critical reflection, perhaps because of participants' unfamiliarity with each other. In contrast, the LuminaSpark© participants had multiply opportunities to enter into reflective discourse with colleagues during the workshop. Also, it was noticed that reflective discourse emerged between participants during family of schools meetings and

system leaders' meetings while having coffee and in hallways. These informal spaces provided time to express new ideas/understandings and to further process the experience.

New Outlook. Mezirow's (1991) transformative learning theory is a constructivist model that moves individuals along a continuum with the goal of producing a new outlook to trigger new behavior(s). To understand this shift in perspective requires the findings to RQ2, which closely examines the activities that lead to a new outlook to foster new behavior. **RQ2: What activities transformed participants' perspectives as defined by King (2009)?**

Several participants' experience caused them to question the way they usually act, as measured in the pre- and post-questionnaire, and they indicated that they began to think about the reactions and feedback from their new behavior [Q2]. In addition, the designated observers recorded each focus group discussion, creating verbatim transcripts, and then they were analyzed for themes using descriptive coding, as outlined by Saldaña (2009), resulting in the emergent themes shown below.

Table 5.5

Emergent Focus Group Themes

LuminaSpark© Experience	Expressive Writing Experience
<ol style="list-style-type: none"> 1. Participants reported a stimulation of self-awareness and reflection through a positive and affirming experience. 2. Participants valued new knowledge of overextended self. 3. Participants valued the perspective of how others may see 'them' and the inspiration to meet others where they are "at". 4. Participants identified different leadership actions precipitating as a result of the experience. 	<ol style="list-style-type: none"> 1. Three participants shared that "There have been no changes". 2. Participants recognized that it took 'forced' uninterrupted time to accomplish the tasks. 3. Participants indicated that the experiences helped to refocus them on core values and beliefs. 4. Participants indicated that gratitude was empowering and it breaks down the negative script in our thinking.

Note: Using structured coding, as defined by Saldaña (2009).

The emergent themes, as self-reported by LuminaSpark© participants, are supported by their repeated positive word usage including “affirmed”, “positive”, and “inspiring” during the Focus Group interviews. In addition, participants made specific reference to “better self-awareness” [2016_005], and that the experience “...allowed me to see what I may have perceived as personality flaws as strengths/future challenges” [2016_013].

As indicated on Table 5.5, the new knowledge of the overextended self was self-reported as a transformational new learning. As one participant wrote “synchronicity of events at school, personal life, and Saturday’s workshop created an awareness of less appealing aspects of my overextended self and how that could manifest conflict and misunderstandings (e.g. miscommunication and impatience)” [2016_007]. This positive and affirming self-awareness experience “affirmed my core values, rejuvenated my goals to improve school culture with positivity, acceptance, tolerance and growth mindset for all” [2016_007].

In addition, participants reported the emergent theme of embracing paradox: diversity within self and others. One participant wrote in response to the leadership question cited above, “...make conscious efforts to dial up my ‘yellow’ when appropriate, but to also see/acknowledge/appreciate the diverse nature of the personalities of the people I interact with daily and try to meet their needs/meet them where they are “at” [2016_013]. As the Lumina practitioner repeatedly shared throughout the workshop, “It’s not personal, it’s personality”, which as one participant wrote, “It’s helping me become a stronger leader” [2016_017].

Furthermore, the question, “What will you do differently in your leadership because of this change?” garnered a variety of responses including “listen more at first – not be so quick to jump in with solutions” [2016_007], “I need to ask for help” [2016_001], and “Be aware of my overextensions, build on my strengths” [2016_009].

One participant wrote:

Moving forward, I will definitely continue to use this information. I now write down ‘the facts’ prior to engaging in difficult conversations, and I will be reviewing my personal vision of leadership and education to consider how I will stand up and be “tougher” when situations/people change this vision [2016-017].

The other treatment group of Expressive Writing (EW) participants indicated that the transformative aspect of their experience was the accountability of having to take the time to reflect, which precipitated in a clear indication of the value of doing so and the need to continue with the practice. One participant shared that although “it was uncomfortable at first, I think this was a good change for me” and that “I need to take more time to reflect on my feelings and then communicate more openly with others” [2016_016]. Similarly, participant 2016_012 shared, “The project reaffirmed the fact that I value journal-writing, reflection, mindfulness/meditation, and the act of being kind to oneself...The project brought about a shift in my thinking – we can be grateful for the insight, learning, and guidance that ANY experience provides us”.

As indicated in Table 5.6 and 5.7 below, six out of 14 participants confirmed that they had an experience that caused them to question their ideas about social roles (e.g. What an administrator should do or how a mother or father should act.). Both treatment groups had participants who did not identify with any of the transformative statements.

One out of 14 participants indicated that they questioned their ideas to the point of shifting their perspective with previous beliefs or role expectations: a shift in perspective, which King (2009) defines as authentic transformative learning. As illustrated below, participants labeled their experience as transformative by checking off statements that best described their experience:

Table 5.6

LuminaSpark© Participants' Responses to the Transformative Statements

Transformative Items	2016 01	2016 03	2016 05	2016 07	2016 09	2016 013	2016 015	2016 017
1. Questioned my actions.	X	X		X			X	X
2. Questioned my ideas.	X			X	X			
3. No longer agree with my beliefs.								
4. Still believe even though I questioned.			X	X				X
5. Realized that others questioned their beliefs.					X			X
6. Thought about acting differently.	X	X						X
7. Felt uncomfortable with my traditional social expectations.	X							
8. Tried out my new beliefs.		X	X					
9. Tried to figure out how to adopt and act on my new beliefs.	X		X				X	X
10. Gathered information on how to adopt my new beliefs.								X
11. Began to think about feedback about my new beliefs.	X	X	X					X
12. Now acting on my beliefs.	X			X				X
13. I do not identify with any of these statements.						X		

Table 5.7

EW Participants' Responses to the Transformative Statements

Transformative Items	2016 04	2016 06	2016 010	2016 012	2016 014	2016 016
1. Questioned the way I act.				X		X
2. Questioned my ideas about social roles.		X	X	X		
3. No longer agree with my beliefs.				X		
4. Still believe even though I questioned.		X	X		X	
5. Realized that others questioned their beliefs.						
6. Thought about acting differently.		X		X		
7. Felt uncomfortable with my traditional social expectations.						
8. Tried out my new roles.					X	
9. Tried to figure out how to adopt and act on my new beliefs.				X		
10. Gathered info on how to adopt my new beliefs.				X		
11. Began to think about feedback about my new beliefs.		X	X	X		
12. Now acting on my beliefs.		X		X		
13. I do not identify with any of these statements.	X					

The LuminaSpark© group reported a greater number of listed transformational items in response to their experience. These items were designed to illuminate participants' transformative thinking (King, 2009). Specifically, the Embracing Paradox portion of the workshop was strongly identified as influencing the workshop experience by approximately 87% of the participants, while Journey to Composure was identified as having the least influence on the day's experience. All activities built into the workshop

had identified value within the experience from the participants' responses as indicated in Figure 5.13.

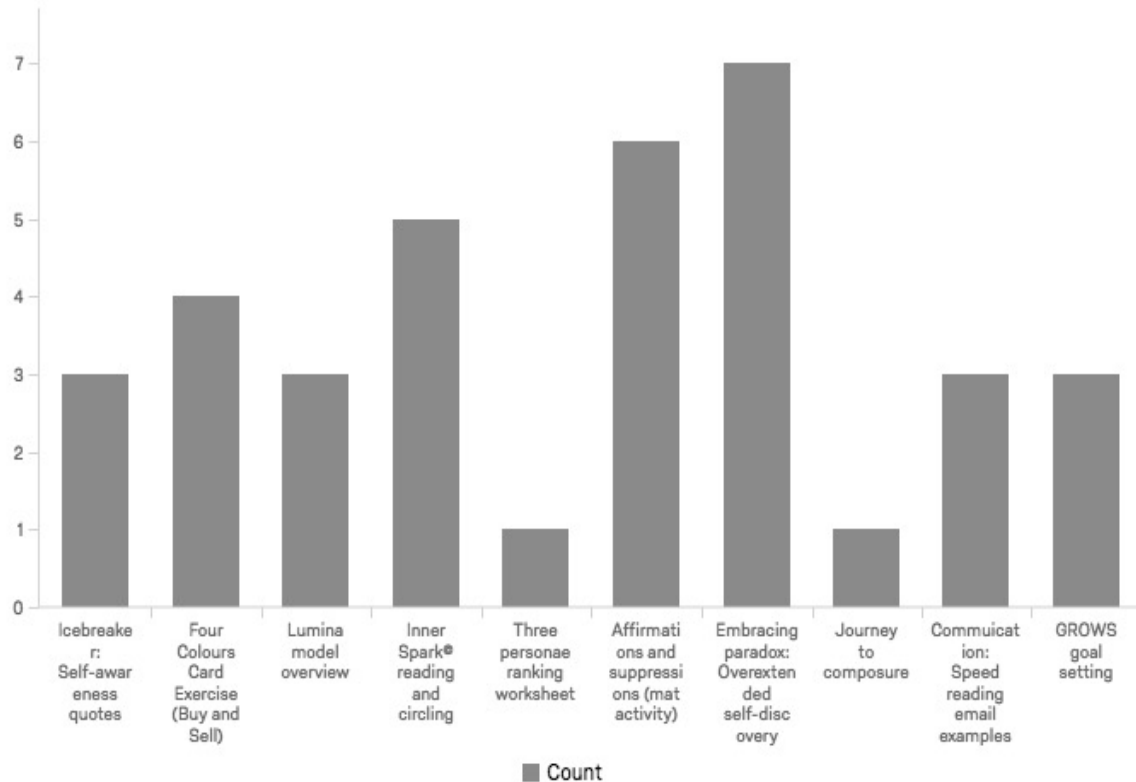


Figure 5.13. Participants' perceived value of workshop components extracted from the post-workshop data gathered through Qualtrics. The y-axis indicates the number of participants ($n = 8$) who selected the various components of the workshop.

Important to note, three participants from the total sample ($n = 17$) indicated that they did not experience a change in their perspective about their values, beliefs, or expectations of themselves. One participant wrote:

I am somewhat discombobulated as to what “change” I was to have experienced through the six writing assignments. Basically, I wrote about five events – this was writing narrative – an exercise in writing. It has not had any impact on me at all [2016_004].

Outcomes

The third research question measured outcomes of the intervention, which also informs the discussion and recommendations of this study in conjunction with the fidelity and transformative learning measures.

RQ3: Was there a difference in administrators' psychological capital and well-being between the active expressive writing treatment and/or the LuminaSpark© treatment?

- a) Did participants report increases in self-reflection and insight? What aspects of psychological well-being are influenced by participants' involvement in the professional learning model?

Psychological Capital (PsyCap)

Based on the field of positive organizational behavior, it is important to note that PsyCap's four positive factors: hope², optimism³, resiliency⁴, and efficacy⁵, are recognized as being independently measureable, as well as manageable and developmental (Avey, Wernsing, & Luthans, 2008; Luthans, Youssef, & Avolio, 2007). PsyCap is a higher-order construct that is developable: state-like (Luthans, Avey, Avolio, Norman & Combs, 2006). This higher-order core construct "represents one's positive appraisal of circumstances and probability for success based on motivated effort and perseverance" (Luthans, Avolio, Avey, & Norman, 2007, p. 550). In addition, PsyCap

² Hope is a "positive motivational state that is based on an interactively derived sense of successful (1) goal-oriented energy, and (2) planning to meet goals" (Snyder, Irving, & Anderson, 1991, p. 287).

³ Optimists are people who expect good things to happen to them; pessimists are people who expect bad things to happen to them (Carver & Scheier, 2002, p. 231).

⁴ Luthans (2002) defines resilience as the ability to rebound "from adversity, uncertainty, conflict, failure, or even positive change, progress and increased responsibility" (p. 702).

⁵ Efficacy is a worker's confidence about his/her abilities to mobilize the motivation, cognitive abilities, or steps to action to successfully meet a specific task in a particular context (Stajkovic & Luthans, 1998).

serves in a mediating role with organizational attitudes and behaviors (Avey, Wernsing, & Luthans, 2008).

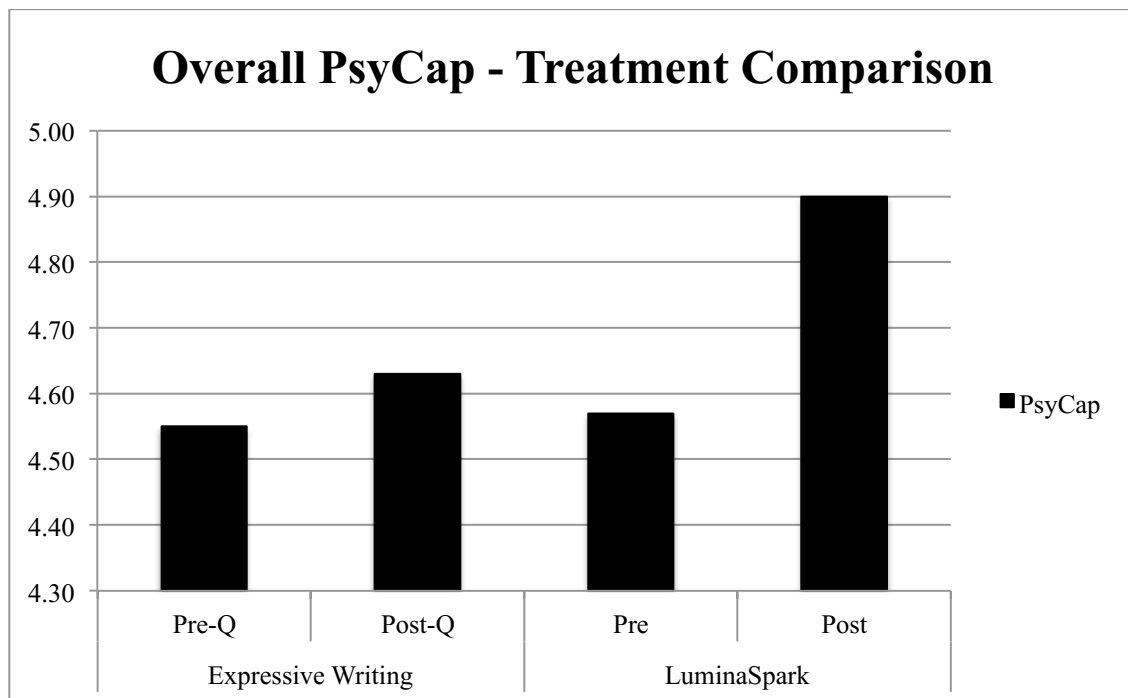


Figure 5.14. Participants' average mean values of pre- and post-intervention psychological capital; A Likert scale was used; 1) Strongly Disagree, 2) Disagree, 3) Somewhat Disagree, 4) Somewhat Agree, 5) Agree, and 6) Strongly Agree.

As illustrated in Figure 5.14, both treatment groups collectively expressed an increase in average values of PsyCap: The LuminaSpark© treatment participants collectively self-reported more PsyCap overall than the EW group. When broken down into the four components of PsyCap, as illustrated below in Figure 5.15, the average value of optimism increased for both treatments while efficacy and resilience average values increased for the LuminaSpark© treatment by a greater measure. As one participant shared, “This experience affirmed my core values, rejuvenated my goals to improve school culture with positivity, acceptance, tolerance and growth mindset for all”

[2016_007]. The EW participants self-reported the same level of resilience between the pre- and post-questionnaire collections. With *resilience*, which is defined as the ability to manage difficulties one way or another at work [Q13-Q18], 94% of participants indicated an ability to take stressful things at work in stride [Q16], which mirrors the recent administrator work intensification studies (Pollock, 2014).

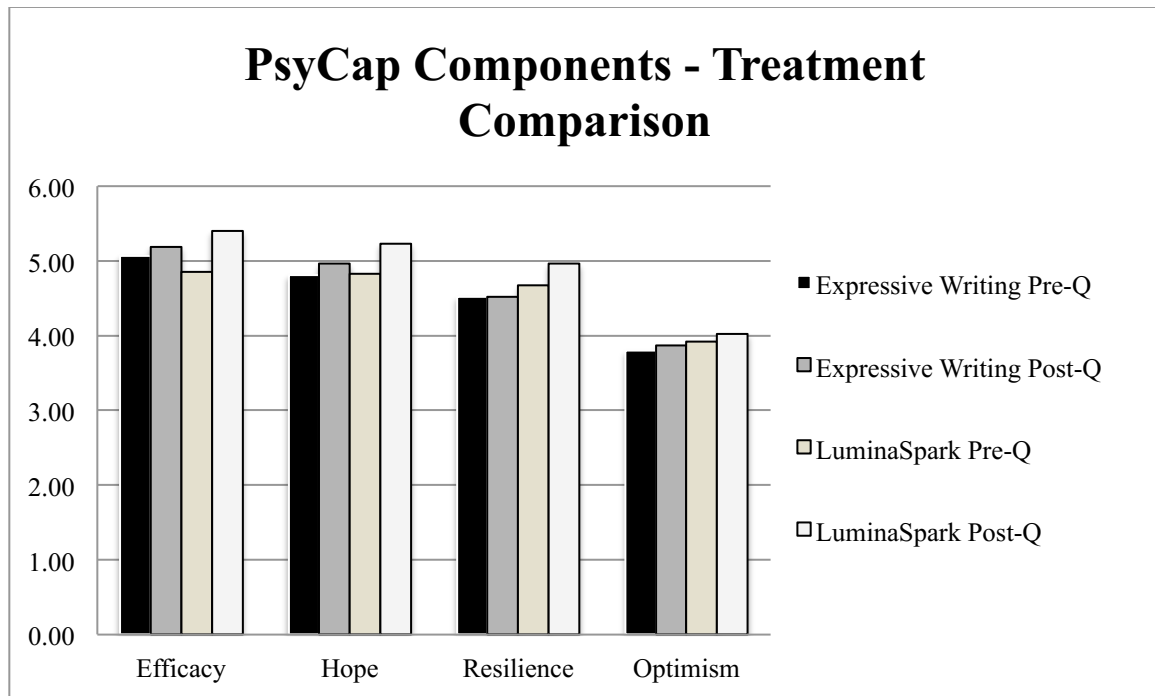


Figure 5.15. Average mean values of each PsyCap component: a) Efficacy, b) Hope, c) Resilience, and d) Optimism.

Importantly, Luthans, Youssef, and Avolio (2007) reported positive results when participants' overall PsyCap increased by 2% post two- to three-hour micro-intervention workshops. Although higher percentages have been reported, Luthans, Youssef, and Avolio prefer to use a relatively conservative estimate. As illustrated in Table 5.7 below, the calculated percentage increase between PsyCap pre- and post-questionnaire increased with both treatment groups. However, LuminaSpark© participants reported four times the

PsyCap post-intervention than the EW participants. Most importantly, the LuminaSpark© PsyCap more than tripled Luthans, Youssef, and Avolio’s 2% positive result.

Table 5.8

PsyCap Pre- and Post-intervention Measures - Percentage

Treatment	Pre-questionnaire	Post-questionnaire	% Increase
Expressive Writing	75.8	77.2	1.8
LuminaSpark©	76.1	81.7	7.3

Regarding *efficacy* [Q1-Q6], the 17 elementary administrators indicated that they had a strong level of confidence when presented with a long-term problem that required them to find a solution. When they were initially asked about contributing to discussions about the organization’s strategy in the pre-questionnaire only 36% somewhat agreed, however the post-measure indicates 16 out of 17 agreed or strongly agreed to being able to contribute. This is supported by the data indicating that every participant reported that they were “pretty successful at work” [Q10]. In contrast, multiple participants disagreed that “At this time, I am meeting the work goals that I have set for myself” [Q10].

This brings into question, “How does a school administrator know that they are successful?” for future research. Regarding *hope*, as measured by questions seven through twelve, the self-reported pre-questionnaire data may reflect the stressful timing of the intervention being after a year of work-to-rule with union tension and media exploiting contract negotiations. Although the participants expressed strong *optimism*, as defined by expecting the best [Q19] and looking at the bright side of things [Q21], five participants disagreed that “I approach this job as if “every cloud has silver lining” [Q24], which may reflect Pollock’s (2014) work intensification finding that 96.6% of participating administrators feel responsible for making the school successful.

Self-reflection and Insight (SRIS)

Designed as an extension of Fenigstein, Scheier, and Buss' Private Self-Consciousness Scale (PrSCS; 1979), Grant, Franklin, and Langford (2002) created the Self-reflection and Insight Scale (SRIS), which measures metacognitive processes a) engagement in self-reflection, b) need for self-reflection, and c) insight into goal attainment and self-regulatory processes. While insight was not correlated with the journal writing in their research, there was a significantly higher level of self-reflection in those who kept journals than those who did not (Grant, Franklin, & Langford, 2002).

According to Grant, Franklin, and Langford (2002), the factors of insight and self-reflection are independent, however, an individual can spend time in self-reflection and not gain any insight. In their meta-analysis, they reported that confounding factors influence the relationship between self-reflection and insight including the extent to which an individual actually consciously engages in acts of self-reflection and why the participant chooses to engage in self-reflection. Perhaps this sheds some light on the slight decrease in SRIS by all participants in this study, as outlined in Figure 5.16.

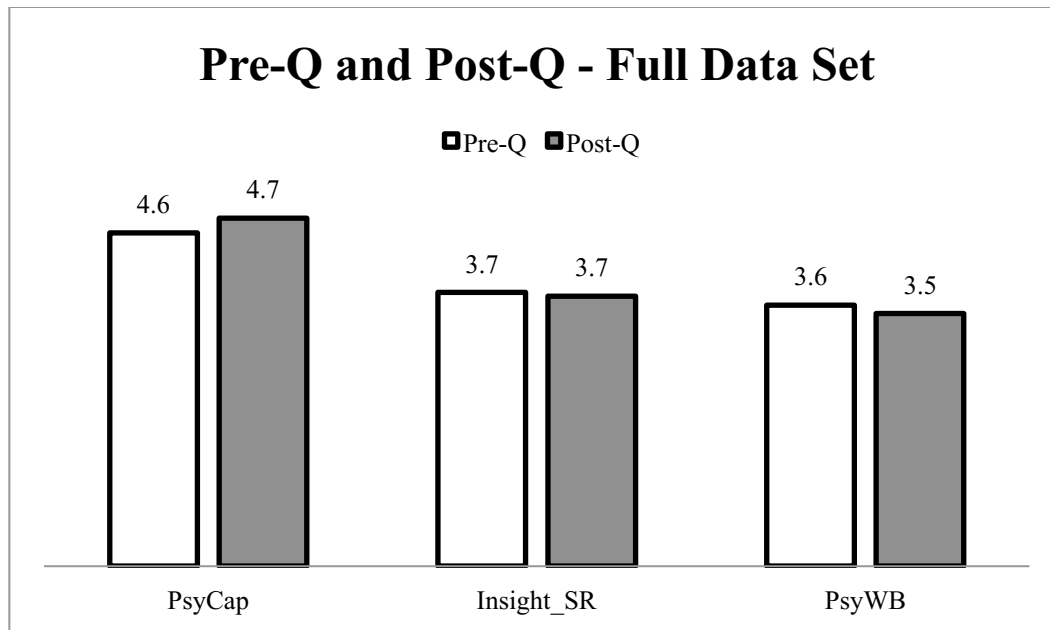


Figure 5.16. Pre- and post-questionnaire data for PsyCap, Self-reflection and Insight, and Psychological Well-being.

As illustrated below in Figure 5.17, participants' pre- and post-survey SRIS data indicated a consistent 'need for self-reflection'. When specifying their need for self-reflection, participants reported a need to understand how the mind works and how thoughts arise [Q35-36]. There was little fluctuation between pre- and post-intervention measurements in the 'engagement of self-reflection' and 'insight'. This may be due to the short duration of the intervention and, three participants out of 17 noted that 'they do not think about why they behave in the way they do' [Q28]. Three different participants noted their "behavior often puzzles them" [Q41] and they expressed an awareness of feelings, but not the ability to label them [Q40], all of which are measures of insight. Notably, as illustrated in Figure 5.17, the post-intervention measure of Insight decreased. For future research, a longer and more extensive time frame may bring clarity to these results.

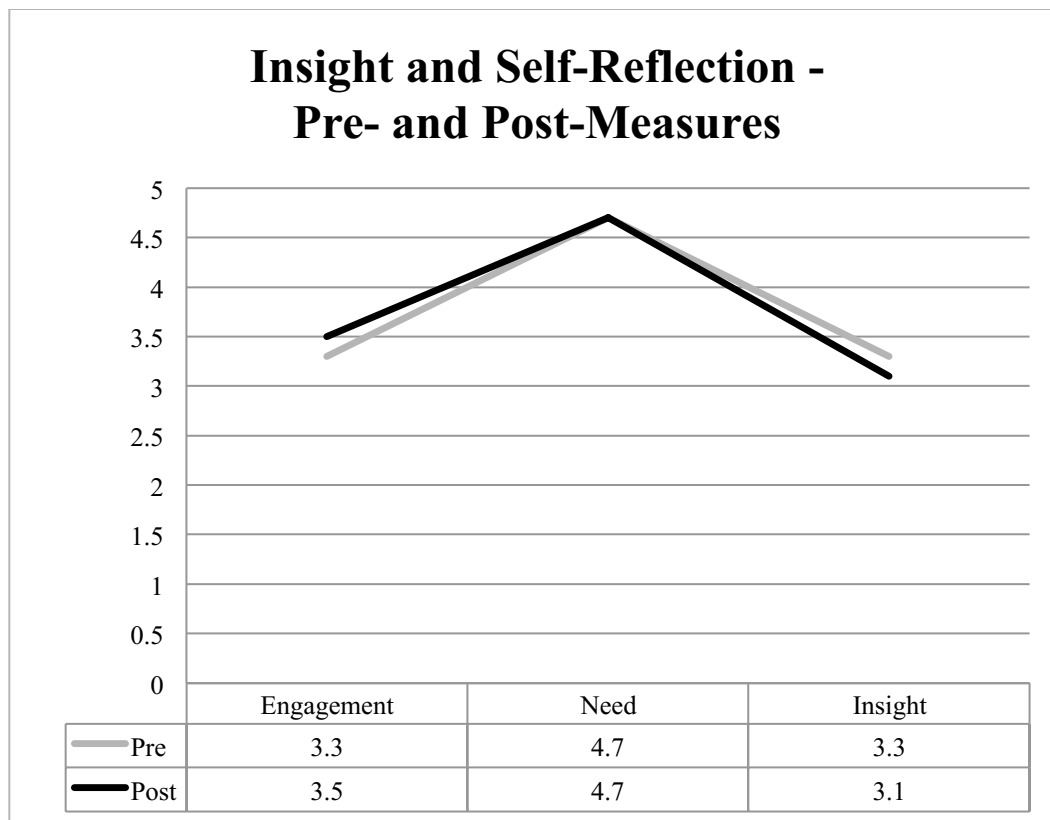


Figure 5.17. Self-reflection and Insight pre- and post-questionnaire results.

As is outlined in the Discussion section, self-reflection is not the same as rumination, and this finding may point to participants spending more time thinking about their emotional reactions and ruminating on their problems rather than searching for solutions. However, in a cross-tabulation between tenure and engagement in self-reflection, participants who were in their first 12 years of the profession did not agree that they think about the way they feel about things. Also, illustrated below in Figure 5.18, tenure does indicate stronger evidence of participants taking the time to reflect on thoughts.

		How long have you been an elementary administrator?							Total
		New - 2 years	2 - 5 years	5 - 8 years	8 - 12 years	12 - 15 years	15 - 20 years	20 + years	
I frequently take the time to reflect on my thoughts.	Strongly disagree	0	0	0	0	0	0	0	0
	Disagree	1	0	0	0	0	0	0	1
	Somewhat disagree	0	1	0	1	0	0	0	2
	Somewhat agree	1	1	1	0	0	0	0	3
	Agree	1	1	2	1	0	0	0	5
	Strongly agree	0	1	1	1	2	1	0	6
Total		3	4	4	3	2	1	0	17
I often think about the way I feel about things.	Strongly disagree	0	0	0	0	0	0	0	0
	Disagree	1	0	0	0	0	0	0	1
	Somewhat disagree	0	1	0	0	0	0	0	1
	Somewhat agree	1	0	1	1	0	0	0	3
	Agree	1	2	2	1	1	0	0	7
	Strongly agree	0	1	1	1	1	1	0	5
Total		3	4	4	3	2	1	0	17

Figure 5.18. Cross-tabulation of participants' tenure and engagement in self-reflection

Psychological Well-being

Ryff (1995) writes, "To be well psychologically is more than to be free of distress or other mental problems. It is to possess positive self-regard, mastery, autonomy, positive relationships with other people, a sense of purposefulness and meaning in life, and feelings of continual growth and development" (p. 103). The psychological well-being (PWB) scale, which measures peoples' interpretation of life's events, was negatively correlated with dimensions of mental health including severe depression (Abbot, Ploubidis, Huppert, Kuh, Wadsworth, & Croudace, 2006). Interestingly, the post-questionnaire results indicate a collective decrease in PWB (as seen in Figure 5.16). When broken down by the six items that comprise PWB, as illustrated below in Figure 5.19, we see that each item incrementally decreased between the pre- and post-questionnaire collection time.

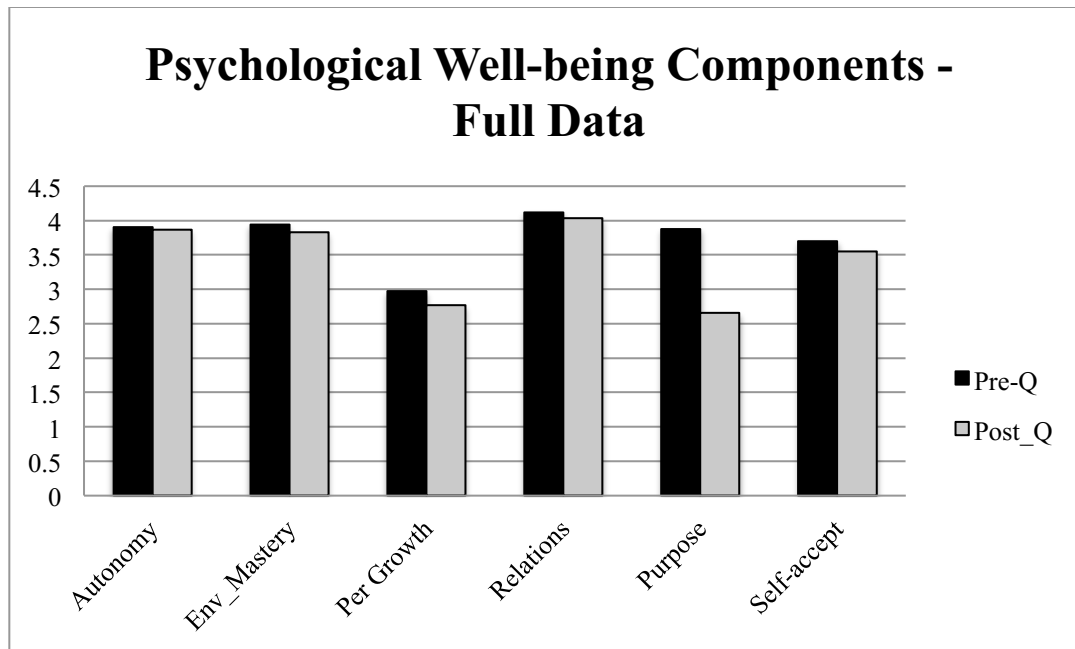


Figure 5.19. Psychological Well-being pre- and post-intervention components using tull data collection: Likert scale (Strongly disagree, Disagree, Somewhat disagree, Somewhat agree, Agree, and Strongly Agree).

In addition, Ryff and Keyes (1995) support a multifaceted model, and Ryff (1995) identifies distinctiveness and strong associations among the six components, which they determined represent different aspects of positive psychological functioning. Specifically, participants indicated feeling positive about themselves [Q85-86] and their achievements in life [Q82]. This strong self-acceptance was further expressed through participants reporting that “All in all everything has worked out for the best” [Q81]. In addition, participants expressed an understood value of goal setting [Q79], however being in new situations and activities that expand their horizon was not strongly supported [Q67]. This was further compounded by a strong struggle to recognize growth in oneself [Q62]. Perhaps a lack of professional engagement with colleagues, which was expressed by the participants around relations with others, particularly expressing feelings of loneliness

[Q67], the notion that others have more friends [Q70], and not having people who want to listen [Q69] diminishes professional accountability and growth. In contrast, participants strongly expressed that they were a “giving person, willing to share my time with others” [Q71] and enjoy conversations with friends and family [Q68]. Consequently, the opinions of family and friends play an important role in decision-making confidence as well as what other colleagues are perceived as doing [Q46; 49].

Regarding the decrease in overall participants’ PWB, as illustrated in Figure 5.19, perhaps an ‘ignorance is bliss’ mindset was disturbed by the self-awareness intervention: A ‘stirring of the pot’ per say that may eventually turn into action, but the lack of turnaround time in the study prohibited a close examination of this inference.

Study Limitations

The fact that the intervention occurred does not necessarily mean that it caused the observed changes due to the limitations within the study that are explained below. This raises the question: Did LuminaSpark© participants’ positive result in the higher order construct of PsyCap result from use of the LuminaSpark© tool or was it due to the collegiality of the workshop experience? This is of particular importance considering the recent principal and vice-principal workload studies where administrators expressed the need for professional learning opportunities (Leithwood & Azah, 2014; Pollock, 2014). Qualitatively, participants responded to both treatments with tremendous vulnerability, and the LuminaSpark© participants responded with positivity. The asset-driven LuminaSpark© experience provided social engagement opportunities during the workshop, which allowed participants to move into active reflective discourse.

Although the study used primary data and a common methodology that is popular in behavioral sciences, it was limited by the exclusive use of self-reporting. Self-reporting relies on the honesty of the participants, their ability to reflect, and an understanding of what is being asked. Some studies even suggest that people respond differently to filling out ratings scales (Austin, Deary, Gibson, McGregor, & Dent, 1998). In addition, the real-world setting of an administrators' life presented a number of obstacles and issues during implementation including miscommunication, time pressure, and sample size constraints.

Communication

According to Bardach (2012), the contaminants of selective perception, issue rhetoric, and semantics, particularly when defining the problem, can shift power and spark politics. Perception, particularly the defining of private troubles as public problems, like administrators' work-stress overload, "cannot typically be ameliorated even by the most well-intentioned governmental interventions" (p. 3). In addition, implementation must move beyond issue rhetoric because its ideological foundation prohibits the work of untangling issue of design and evaluability. Consequently, semantics can derail implementation due to the need for all actors to understand and interpret the treatment.

Also, consistent communication between participants and the research team often required more than one connection to confirm receipt and understanding. Using a separate gmail account helped to alleviate some of these challenges along with the group emailing tool through Qualtrics.

Time Pressure

When assembling evidence, time pressure continually threatened data collection. According to Bardach (2012), this obstacle can result in diminished thinking and data plowing. Of these synergistic activities, critical and deep thinking is most important when weighing their real value. According to Bardach, with time being the enemy, the perception can be that the experiences were simply on a ‘to-do’ list requiring limited levels of commitment and engagement, which may explain the two participants who could not identify any transformative aspect of the experience.

In addition, each school year has an organic ebb and flow to it based on the demands educators need to meet including report card writing and the anticipation of extended breaks. As illustrated below, this is often identified and is widely accepted as the phases of first-year teachers’ attitudes toward teaching. However, it is proposed that these phases are experienced as educators work through the regular academic calendar. For example, the rejuvenation phase occurs post March Break and the survival phase moves through the initial weeks of establishing class expectations particularly around misconduct and off-task behavior.

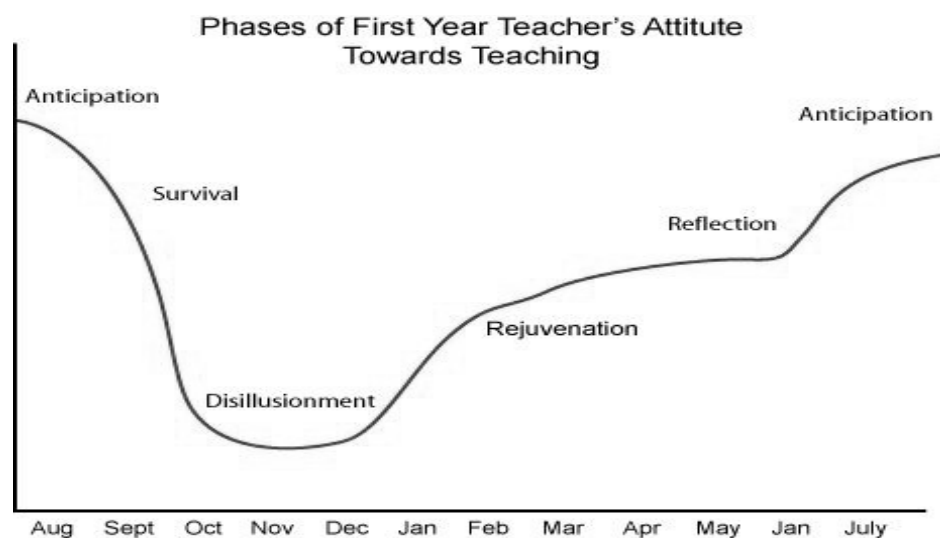


Figure 5.20. Phases of first year teachers’ attitude towards teaching (Moir, 1990).

This intervention was completed after the first progress report cards went out in October and three weeks before the two-week Christmas holiday break, which is considered the disillusionment phase. However, this is considered a less stressful time within the academic calendar since parent-teacher interviews have been completed. In conjunction with the time constraints outlined above, this presents opportunity for further research to measure the influence of the two treatments across the entire school year experience.

Sample Size

Multiple conditions must be met to in order to complete descriptive statistics for each measure including between variable correlations. Due to the small sample size ($n = 17$) such statistics were not reliable. However, as outlined in the Future Research section of this chapter, gathering the data to do a meditational analysis to determine the effects of one variable between an independent and an outcome variable would increase the generalizability of the findings, and support evaluability and validity.

Furthermore, the study focused on a single school district within Ontario. The administrators in this study may have provided different responses to administrators in other districts. Consequently, caution should be used when generalizing the study findings.

Geographic Constraints

Administrators, particularly lone-administrators who have no vice-principal support, struggle to attend centrally based professional development due to the demands of the job (Pollock, 2014). Although Pollock recommends providing effective professional development that is aligned with principals' work including a) emotional

intelligence/relationship building, b) communication skills, and c) knowledge of teaching and learning (p. 35), the issue of geographic constraints must be addressed in order to free up administrators to fully participate. This study was designed with this sensitivity resulting in a digitally driven intervention with the LuminaSpark© workshop and Focus Group Interview at the end being the only collective experiences.

Self-reporting Bias

The data collection for this study was reliant on self-reporting particularly with the pre- and post-questionnaire and workshop feedback. Naturally, there could be self-presentation biases in which individuals presented limited information. Although popular in social science research, self-reporting demands strong validity and reliability measures, which were confirmed in Chapter 4. But when it comes down to it, self-reporting presumes that participants are answering honestly, understand what is being asked, and have an ability to be introspective to provide an accurate response.

Since “change is not always met with celebration” (King, 2009, p.9), and often is met by humans with resistance, some learning produces negative and sometimes severe results. The self-reported psychological well-being (PWB) findings are influenced by the rawness or vulnerability in both treatments: a) the receipt of the personalized LuminaSpark© portrait, and b) expressive writing prompts, as outlined above.

As indicated in Figure 5.21, EW participants did have the opportunity to extensively self-reflect through their writing experiences, however they did not move into reflective discourse within their treatment due to limited social interconnections for reflective discourse. In contrast, LuminaSpark© participants moved further along in the transformational learning framework, as outlined above, by participating in opportunities

for reflective discourse within the workshop and by completing the G.R.O.W.S. goal-setting activity at the end of the workshop. This potentially moved the participants toward new behavior. However, no accountability was built into the experience for participants to follow through with their G.R.O.W.S. goals.

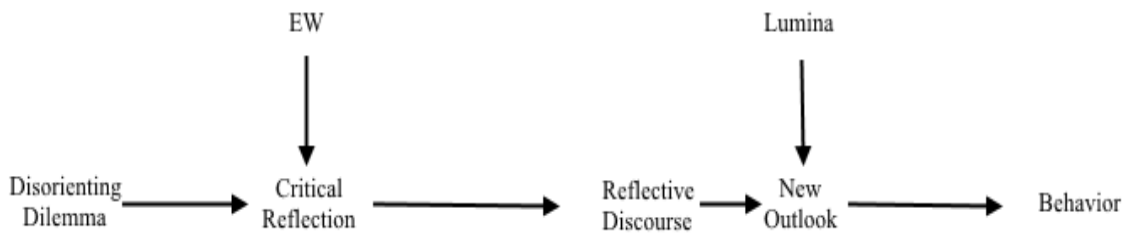


Figure 5.21. Both treatment groups moved along the Transformative Learning path.

With confidence, based on the transformative learning findings, neither treatment provided a leadership development experience to prime new behavior for healthy quality connections and organizational health. Specifically, individuals were ‘stuck’ within the learning framework, as indicated by the letter A and B in Figure 5.22.

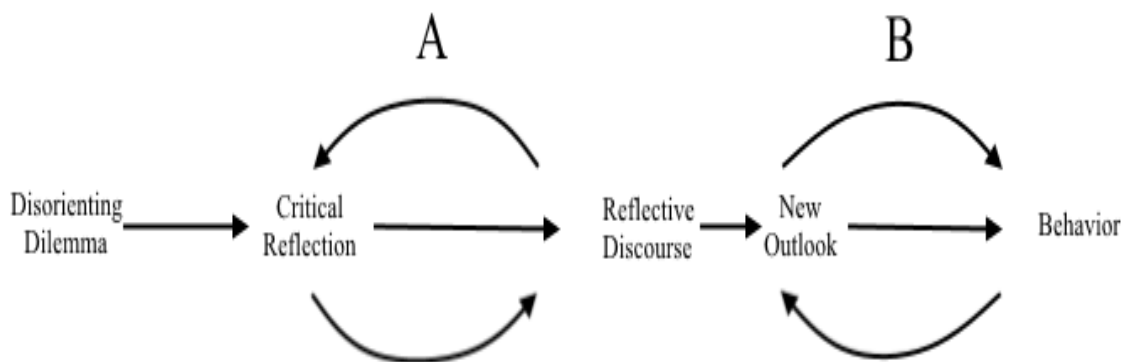


Figure 5.22. Transformative Learning model with ‘stuck’ cycles (Grant, Franklin, & Langford, 2002, p. 831)

As indicated by letter A, individuals persevere on an assumption without authentically examining presuppositions. As Grant, Franklin, and Langford (2002) found

in their study of journal-keeping participants, some individuals get ‘stuck’ in a process of “self-focused self-reflection” because they struggle to make changes and would rather spend time simply thinking about the idea of change (p. 831). In addition, as indicated by the letter B in Figure 5.22, individuals get stuck in the new outlook, and never re-examine the new behavior to determine its impact on the self or the organizational culture. In order to shift culture through transformative learning, reflective discourse using an embedded behavior change theory must be established over time to build accountability to produce behavior change.

Discussion

The LuminaSpark© workshop focused on self-reflection to prime self-awareness, which was confirmed by meeting participants’ expectations particularly in attending the workshop. First, participants came to the workshop anticipating receipt of their LuminaSpark© portfolio with their psychometric results, which were distributed during the workshop. Secondly, the participants recognized that the workshop was “an opportunity to learn more about the LuminaSpark© and how it can help me deepen my personal awareness; time to self-reflect” [2016_001]. In addition, the workshop was a time “to learn more about me and how to sharpen my awareness about strengths and growth spots” [2016_005]. As one participant shared, “I received what I came expecting and more” [2016_005].

Repeatedly, participants identified that “an item of value was time with peers” and a desire to have “more time with peers to connect in ways like this” was expressed [2016_007]. The expectations were met with a strong emphasis on “camaraderie; collaboration; self-observing” [2016_009] and “I received a gift of a day with my

colleagues” [2016_007]. Arguably, the LuminaSpark© workshop establishes “an intimate atmosphere of collegiality with interest in helping one another” [2016_001], and the value was in “the people in this room and the tool” [2016_009] and “confirmation of who I am and as a leader” [2016_015]. Consequently, the LuminaSpark© tool was an integral part of the social engagement that framed the reflective discourse within the time spent together.

The positive result of the PsyCap pre- and post-measures with the LuminaSpark© participants has implications based on previous research. Specifically, PsyCap is positively connected to job performance and satisfaction based on attitudes and negatively correlated to absenteeism (Avolio et al., 2007; Larson & Luthans, 2006). Since PsyCap can be developed, there are financial implications to increasing the components through strategic measurable means within the organization. Specifically, by using an economic lens and determining human capital factors raises the issue of PsyCap return-on-investment (ROI). Already explored by Luthans, Youssef, and Avolio (2007), a dollar value can be attached to PsyCap measures over the period of one year, which motivates the organization to further explore the development of effective interventions. By doing so, collective PsyCap growth within an organization supports effective practice and positive climate.

The Expressive Writing (EW) participants’ indicated a gradual increase in their self-reported perception of the value and meaningfulness of expressive writing. And, as Cohn, Mehl, and Pennebaker (2004) write, “People’s natural language carries important information about their personalities, social situations, ongoing emotional and cognitive coping processes, and idiosyncratic reactions to crisis” (p. 688). Furthermore, usage rates

of LIWC2015 Function Word categories confirmed that the participants' writing had strong emotional tone and was authentic (Pennebaker, Chung, Frazee, Lavergne, & Beaver, 2014). However, without the social occasion for reflective discourse, EW participants were not provided with the opportunity to cultivate a new outlook to prime new behavior as outlined in the transformative learning framework.

Recommendations

This study offers preliminary data to help design more effective transformational professional development for school administrators; however, it is only the first step in understanding the role self-awareness plays in school leadership and positive climate. Although participants in both treatments self-reported multiple experiences as shifting their perspectives, there still remains the need to monitor and measure participants' new outlooks and behaviors.

The LuminaSpark© participants' potential new behaviors emerged when setting their G.R.O.W.S. goals while the Expressive Writing participants' gradually increasing engagement levels both present an opportunity for further exploration by providing multiple reflective opportunities to guide individuals through behavior change. As indicated in Figure 5.23, behavior change is assessed by an individual's readiness to act on a new outlook. The goal of the professional development process is to shift individuals into action, and maintenance, of new behaviors.

Recursive Reflective Discourse. Beyond the annual book study or two-day workshop, transformative learning is a fluid and linear theoretical framework that reflects individual meaning-making of experiences that leads to new behavior (Mezirow, 1991). Since both treatments failed to produce a shift in perspective resulting in new behavior, a

transformative learning model with opportunities for participants to repeatedly engage in reflective discourse is recommended, thereby creating a transformative learning cycle focusing on behavior change through reflective discourse; making reflective discourse the hub.

Individuals move back and forth between the change-stages and/or move through the change-stages at different rates (McNamara, 1998). Some individuals may linger in early stages, while others may move quickly through each stage. As illustrated below, this progress is spiral in nature; not linear.

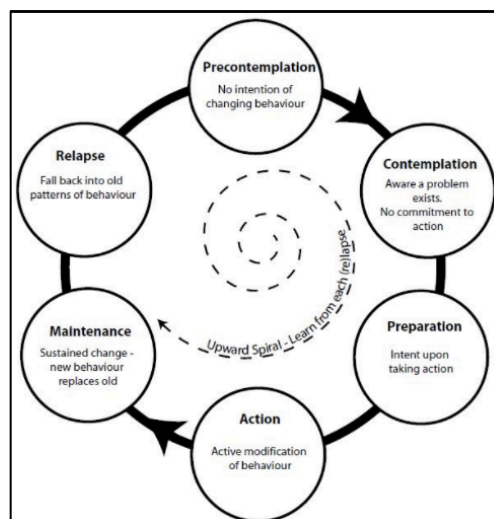


Figure 5.23 Model of behavior change that indicates the spiral effect of the change process (McNamara, 1998).

Predictably, individuals shift through different stages several times before achieving sustained change. This includes relapsing into old behavior(s). Consequently, behaviour change illustrates a potential spiral of human flourishing where individuals participate in recursive reflective discourse; creating a reflective culture.

This recursive reflective discourse culture, established in small groups, clusters, or partners, potentially diminishes the possibility of perseverating and of establishing

‘stuck’ behavior, as shown in Figure 5.22. As indicated by the letter C, and illustrated in Figure 5.24, once an individual has participated in a transformational learning activity through formal professional development, they continue to experience support, guidance, and accountability by participating in a professional reflective network (PRN) to facilitate recursive discourse.

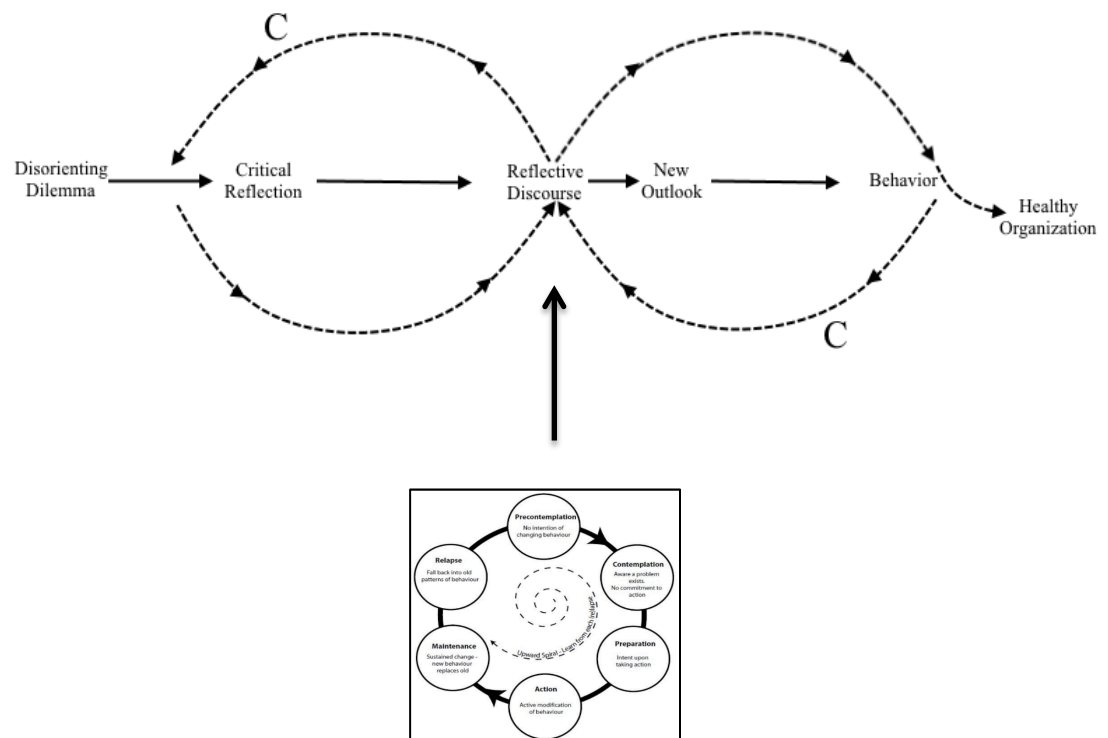


Figure 5.24. Recursive discourse embedded within the transformative learning model.

Professional Reflective Networks. By participating through a PRN, over a period of time, with a focus on recursive reflective discourse with colleagues, participants’ new outlook and behavior(s), as defined by transformative learning, may be refined and molded. The recursive discourse may provide the platform to realize Dutton and Heaphy’s (2003) barometers of high quality connections, which include three characteristics: a) higher emotional carrying-capacity, b) tensility of the connection, which is the ability to withstand strain and stress, and c) the degree of connectivity, which

is the measure of openness and generativity. Hypothetically, multiple individual realities begin to align with others' to potentially build collective capacity and healthy organizational citizenship through intentional behavior change and common professional rhetoric based on the LuminaSpark© experience.

Conclusion

While it is clear from this study and the current literature that elementary administrators desire professional development to be effective in their role(s), present workload issues and systemic disorganization prohibit implementation (Pollock, 2014). Consequently, Pollock recommended, “effective professional development that is aligned with principals’ work: a) emotional intelligence/relationship building, b) communication skills, and c) knowledge of teaching and learning” (p. 35) to support administrators who expressed the “need for reassurances of worth, reliable alliances, and opportunities for professional development and nurturance” (Leithwood & Azah, 2014). This preliminary study revealed that both treatments, LuminaSpark© and the Expressive Writing experiences, contained transformative elements that were experiential, but transformative learning with an identifiable shift in perspective producing new behavior, was not confirmed.

The outcome-aim of this study was to increase administrators’ psychological well-being by exploring three key factors: a) difference in administrators’ psychological well-being, and b) difference in participants’ self-reflection and insight and c) what aspects of psychological capital and well-being influenced administrators’ involvement in the intervention. While the magnitude of participants’ overall PsyCap pre- and post-intervention was positively reported with the LuminaSpark© group, psychological well-

being, and self-reflection and insight showed decreases that may be due to too short a time frame to see potential change.

It is proposed that future leadership development focusing on the four factors of hope, optimism, resiliency, and efficacy, uses professional reflective networks (PRN) to facilitate recursive critical reflective discourse with either treatment; creating a hub within transformative learning to produce sustained change. Furthermore, school administrators can consider the research presented in Chapters 1 and 3 to frame their understanding around teachers' and administrators' individual psychological capacity, and how collective capacity influences school leadership.

References

- Achor, S. (2010). *The happiness advantage: The seven principles of positive psychology that fuel success and performance at work*. New York, NY: Random House.
- Avey, J. B., Wernsing, T. S., & Luthans, F. (2008). Can positive employees help positive organizational change? Impact of psychological capital and emotions on relevant attitudes and behaviors. *The Journal of Applied Behavioral Science*, 44(1), 48-70.
Doi:10.1177/0021886307311470
- Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational and Organizational Psychology*, 72, 441-461.
Retrieved from www.search.proquest.com.proxy1.library.jhu.edu
- Avolio, B. J., Gardner, W. L., Walumbwa, F. O., Luthans, F., & May, D. R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors, *The Leadership Quarterly*, 15(6), 801-823.
doi:10.1016/j.leaqua.2004.09.003
- Avolio, B. J., & Gardner, W. L. (2005). Authentic leadership development: Getting at the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315-338.
doi:10.1016/j.leaqua.2005.03.001
- Bailey, B. (2000). The impact of mandated change on teachers. In N. Bascia & A. Hargreaves (Eds.), *The sharp edge of educational change: Teaching, leading and the realities of reform* (pp.112-28). London: Falmer Press. Retrieved from <https://books.google.ca/books>

- Barchard, K. A., Bajgar, J., Leaf, E. D., & Lane, R. D. (2010). Computer scoring of the Levels of Emotional Awareness Scale. *Behavior Research Methods*, 42(2), 586-595. doi:10.3758/BRM.42.2.586
- Bartlett, R. C., & Collins, S. D. Trans. 2011. *Aristotle's Nicomachean Ethics*. Chicago, IL: University of Chicago Press.
- Bascia, N., & Rottmann, C. (2011). What's so important about teachers' working conditions? The fatal flaw in North American educational reform. *Journal of education policy*, 26(6), 787-802. doi:10.1080/02680939.2010.543156
- Bass, B.M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529. Retrieved from <http://eds.a.ebscohost.com.proxy1.library.jhu.edu>
- Bellingrath, S., Weigl, T., & Kudielka, B. M. (2009). Chronic stress and exhaustion is associated with higher allostatic load in female school teachers. *Stress*, 12(1), 37-48. doi:10.1080/102538902042041
- Blase, J., & Blase, J. (1997). The micro-political orientation of facilitative school principals and its effect on teachers' sense of empowerment. *Journal of Educational Administration*, 35(2), 138-164. doi:10.1108/09578239710161777
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, 54(1), 579. Retrieved from ebscohost.com
- Boyatzis, R., & McKee, A. (2005). *Resonant leadership*. Boston, MA: Harvard Business School Press.

- Brown, B. (2012). *Daring greatly: How the courage to be vulnerable transforms the way we live, love, parent, and lead*. NY, New York: Gotham Books.
- Bryson, J. M. (2004). What to do when stakeholders matter: A guide to stakeholder identification and analysis techniques. *Public Management Review*, 6(1), 21-53.
Retrieved from <http://teep.tamu.edu>
- Bryson, J. M., & Patton, M. Q. (2010). Analyzing and engaging stakeholders. In J. S. Wholey, H. P. Hatry, & Newcomer, K. E. (Eds.), *Handbook of practical program evaluation*. (4th ed., pp. 36-61). Hoboken, NJ: John Wiley & Sons, Inc.
- Canadian Pediatric Society. (2012). *Are we doing enough? Status reports on Canadian public policy and child and youth health*. Retrieved from <http://www.cps.ca/advocacy-defense/status-report>
- Cartwright, S., & Holmes, N. (2006). The meaning of work: The challenge of regaining employee engagement and reducing cynicism. *Human Resources Management Review*, 16, 199-208. doi:10.1111/j.1754-9434.2007.0002.x
- Clark, R., & Antonelli, F. (2009). *Why teachers leave: Results of an Ontario survey*. Toronto: Ontario Federation of Teachers. Retrieved from <http://www.otffeo.on.ca/>
- Coleman, A. (2011). Towards a blended model of leadership for school-based collaborations. *Educational Management Administration & Leadership*, 39(3), 296-316.
doi:10.1177/1741143210393999
- Collison, D., & Collinson, M. (2009). Blended leadership: Employee perspectives on effective leadership in the UK Further Education sector. *Leadership*, 5(3), 365-380. doi:10.1177/1742715009337766

- Cook, S. C., Godiwalla, S., Brooks, K. S., Powers, C. V., & John, P. (2010). Recruitment and retention of study participants. In J. S. Wholey, H. P. Hatry, & K. Newcomer, *Handbook of practical program evaluation*. (4th ed., pp. 197-224). Hoboken, NJ: John Wiley & Sons, Inc.
- Costa, R. R., & McCrae, P. T. (1997). Personality trait structure as a human universal. *American Psychologist*, 52(5), 509-516. Retrieved from www.psychometric-assessment.com
- Craft, (2005). *Creativity in schools: Tensions and dilemmas*. New York, NY: Routledge.
- Crawford, J. R., & Henry, J. D. (2004). The Positive and Negative Affect Schedule (PANAS): Construct validity, measurement properties and normative data in a large non-clinical sample. *British Journal of Clinical Psychology*, 43, 245-265.
doi:10.1348/0144665031752934
- Creswell, J.W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oakes, CA: SAGE.
- Csikszentimihalyi, M. (2000). *Beyond boredom and anxiety*. San Francisco, CA: Jossey-Bass.
- Cutrona, C. E. (1989). Behavioral manifestations of social support: A microanalytic investigation. *Journal of Personality and Social Psychology*, 51(1), 201-208.
doi:10.1037/0022-3514.51.1.201
- Darwin, C. (1872). *The expression of the emotions in man and animals* (Reprinted 1969). New York, NY: Greenwood Press.
- Daudelin, M. W. (1997). Learning from experience through reflection. *Organizational Dynamics*, 24(3), 36-48. Retrieved from www.sciencedirect.com

- Day, C., Kington, A., Stobart, G., & Sammons, P. (2006). The personal and professional selves of teachers: Stable and unstable identities. *British Educational Research Journal*, 32(4), 601-616. doi:10.1080.01411920600775316
- Denzin, N. K. (1985). Emotion as lived experience. *Society for the Study of Symbolic Interaction*, 8(2), 223-240. doi:10.1525/si.1985.8.2.223
- Devall-Martin, L. (2015). *Teachers' emotional fitness: Examining teachers' own perceived daily emotional awareness*. Unpublished manuscript, Johns Hopkins University.
- Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a National Index. *American Psychologist*, 55(1), 34-43. doi:10.1037/0003-066X.55.1.34
- Dusenbury, L., Brannigan, R., Falsco, M., & Hansen, W. B. (2003). A review of research on fidelity of implementation: implications for drug abuse prevention in school settings. *Health Education Research*, 18(2), 237-256. doi:10.1093/her/18.2.237
- Dutton, J. E., & Heaphy, E. D. (2003). The power of high-quality connections. *Positive Organizational Scholarship: Foundations of a New Discipline*, 3, 263-278.
Retrieved from <http://webuser.bus.umich.edu/janedut/>
- Elementary Teachers' Federation of Ontario (ETFO). (n.d.). *A promise to Ontario's children: Public education is not for sale*. Toronto: Author. Retrieved from www.etfo.on.ca
- Ensor, J., Brenstein, E., & Desson, S. (2013). *LuminaSpark: Reliability and validity*. Lumina Learning, EU: University of Westminster.

- Evans, L. (2001). Delving deeper into morale, job satisfaction and motivation among education professionals: Re-examining the leadership dimension. *Educational management and administration & leadership*, 29(3), 291-306.
doi: 10.1177/0263211X010293004
- Eraut, M. (2004). Informal learning in the workplace. *Studies in Continuing Education*, 26(2), 247-273. doi:10.1080.158037042000225245
- Eyal, O., & Roth, G. (2011). Principals' leadership and teachers' motivation. *Journal of Educational Administration*, 49(3), 256-275. doi:10.1108/09578231111129055
- Feldman-Barrett, L. F. (2006). Solving the emotion paradox: Categorization and the experience of emotion. *Personality & Social Psychology Review*, 10(1), 20-46.
doi:10.1207/s15327957pspr1001_2
- Fenigstein, A., Scheier, M. F., & Buss, A. H. (1979). Public and private self-consciousness: Assessment and theory. *Journal of Consulting and Clinical Psychology*, 43(4), 522-527. doi:10.1037/h0076760
- Ferguson, K., Frost, L., & Hall, D. (2012). Predicting teacher anxiety, depression, and job satisfaction. *Journal of Teaching and Learning*, 8(1), 27-42. Retrieved from <http://www.uh.cu/static/documents/>
- Fink, D. (2003). The law of unintended consequences: The 'real' cost of top-down reform. *Journal of Educational Change*, 4(1), 105-128. Retrieved from <http://eds.b.ebscohost.com.proxy1.library.jhu.edu>
- Folkman, S., & Lazarus, R. S. (1985). If it changes, it must be a process: Study of emotion and coping during three stages of a college exam. *The Journal of*

Personality and Social Psychology, 48(1), 150-170. doi: 10.1037/0022-3514.48.1.150

Frederickson, B. L. & Joiner, T. (2002). Emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13(2), 172-175. Retrieved from www.jstor.org

Frederickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist*, 60(7), 678-686. doi:10.1037.0003-066X.60.7.678

Froese-Germain, B. & Riel, R. (2012). *Understanding teachers' perspectives on student mental health: Findings from a national survey*. Toronto: Canadian Teachers' Federation. Retrieved from www.etf-fce.ca

Froese-Germain, B. (2014). *Work-life balance and the Canadian teaching profession*. Toronto, ON: Canadian Teachers' Federation. Retrieved from <http://0-files.eric.ed.gov.opac.msmc.edu>

Gagné, M., & Deci, E. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26, 331-362. doi:10.1002/job322

Goldman, D. (2005). *Emotional intelligence: The 10th anniversary edition*. New York, NY: Random House.

Goodson, B., Price, C., & Darrow, C. (2014). Measuring fidelity. In C. V. Meyers and W. C. Brandt (Eds.), *Implementation fidelity in education Research: Designer and evaluator considerations*, 176-199. New York, NY: Routledge.

Grant, A. M., Franklin, J., & Langford, P. (2002). The self-reflection and insight scale: A new measure of private self-consciousness. *Social Behavior and Personality*, 30(8), 821-836. Retrieved from <https://www.researchgate.net/profile>

- Grayson, J. L., & Alvarez, H. K. (2008). School climate factors relating to teacher burnout: A mediator model. *Teaching and Teacher Education*, 24, 1349-1363. doi:10.1016/j.tate.2007.06.005
- Hamachek, D. (1999). Effective teachers: What they do, how they do it, and the importance of self-knowledge. In R. P. Lipka & T. M. Brinthaupt (Eds.), *The role of self in teacher development* (pp. 189-209). Retrieved from <https://books.google.ca>
- Hardiman, M. (2012). *The brain-targeted teaching model for 21st century schools*. Thousand Oakes, CA: SAGE.
- Hargreaves, A. (1998). The emotional practice of teaching. *Teaching and Teacher Education*, 14(8), 835-854. doi:SO742-051X(98)00025-0
- Hargreaves, A. (2000). Mixed emotions: Teachers' perspectives of their interactions with students. *Teaching and Teacher Education*, 16(1), 811-826. doi:10.1016/S0742-051X(00)00028-7
- Hargreaves, A. (2001). Emotional geographies of teaching. *Teachers College Record*, 103(6), 1056-1080. Retrieved from <https://ww2.faulkner.edu/>
- Hargreaves, A. (2010). Presentism, Individualism, and Conservatism: The legacy of Dan Lortie's *Schoolteacher*: A sociological study. *Curriculum Inquiry*, 40(1), 144-154. doi:10.1111/j.1467-873X.2009.00472.x
- Harrington, R., & Loffredo, D. A. (2010). Insight, rumination, and self-reflection as predictors of well-being. *Journal of Psychology*, 145(1), 39-57. Retrieved from <http://www.tandfonline.com/doi/full/10.1080/00223980.2010.528072>

- Hattie, J. (2003). Teachers make a difference: What is the research evidence?
Professional Learning and Leadership Development. Auckland, AU: University of
Auckland. Retrieved from <http://research.acer.edu.au/cgi/>
- Hepburn, A., & Brown, S. D. (2001). Teacher stress and the management of
accountability. *Human Relations*, 54(6), 691-715. doi:10.1177/001872601546001
- Higgins, C., & Duxbury, L. (2003). *Work-life conflict in Canada in the new Millennium:
A status report*. Health Care Canada. Retrieved from www.publications.gc.ca
- Higgins, C., & Duxbury, L. (2012). *Revisiting work-life issues in Canada: The 2012
national study on balancing work and caregiving in Canada*. Retrieved from
<http://newsroom.carleton.ca>
- Hochschild, A. R. (1979). Emotion work, feeling rules ad social structure. *American
Journal of Sociology*, 85(3), 551-575. Retreived from www.jstor.org
- Hoekstra, A., Brekelmans, M., Beijaard, D., & Korthagen, F. (2007). Experienced teachers'
informal learning: Learning activities and changes in behavior and cognition. *Teaching
and Teacher Education*, 25, 663-673. doi:10.1016/j.tate.2008.12.007
- Hoy, W. K., Gage, C. Q., & Tarter, C. J. (2006). School mindfulness and faculty trust:
Necessary conditions for each other? *Educational Administration Quarterly*, 42,
236-255. doi:10.1177/0013161X04273844
- Huang, Y. (2010). The self-centeredness objective to virtue ethics. *American Catholic
Philosophical Quarterly*, 84(4), 651-692. Retrieved from
www.researchgate.net/profile/Yong_Huang13

- Ilies, R., Spitzmuller, M., & Dimotakis, N. (2012). Leaders' emotional expressiveness and their behavioural and relational authenticity: Effects on followers. *European Journal of Work and Organizational Psychology, 1*(1), 1-19. doi:10.1080/1359432X.2011.626199
- Immordino-Yang, M. H., & Damasio, A. (2007). We feel, therefore we learn: The relevance of affective and social neuroscience to education. *Mind, Brain, & Education, 1*(1), 3-10. doi:10.1111/j.1751-228X2007.00004.x
- Institute for Educational Leadership. (2013). *The Ontario Leadership Framework: School and system leader's guide to putting Ontario Leadership Framework to action*. Retrieved from www.education-leadership-ontario.ca
- Jessup, G., Bian, S., Chen, Y., & Bundy, A. (2012). *P.I.E.L. Survey application manual*. Univeristy of Sydney - Faculty of Health Sciences, Australia.
- John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big-Five Trait Taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & A. Pervin (Eds.), *Handbook of personality: Theory, and research* (pp. 114-158). New York, NY: Guilford Press.
- Jurasaitė-Harbison, E., & Rex L. A. (2010). School cultures as contexts for informal teacher learning. *Teaching and Teacher Education, 26*, 267-277. doi:10.1016/j.tate.2009.03.012
- Kelchtermans, G. (2005). Teachers' emotions in education reforms: Self-understanding, vulnerable commitment and micro-political literacy. *Teaching and Teacher Education, 21*(1), 995-1006. doi:10.1016/j.tate.2005.06.009
- King, K. P. (1997). Examining activities that promote perspective transformation among adult learners in higher education. *International Journal of University Education, 36*(3), 23-37. Retrieved from <https://eric.ed.gov/?id=EJ572999>

- King, K. P. (2004). Both sides now: Examining transformative learning and professional development of educators. *Innovative Higher Education*, 29(2), 155-174.
doi:10.1023/B:IHIE.0000048796.603905f
- King, K. P. (2009). *Handbook of the evolving research of transformative learning: Based on the Learning Activities Survey* (10th ed.), Charlotte, NC: Information Age Publishing Inc.
- Klassen, Yerdelen, & Durksen (2013). Measuring teacher engagement: Development of the Engaged Teachers Scale (ETS). *Frontline Learning Research*, 1(2), 33-52.
Retrieved from <http://journals.sfu.ca/flr/flr/index.php/journal/article/view/44/89>
- Klusmann, U., Kunter, M., Trautwein, U., Lüdtke, O., & Baumert, J. (2008). Engagement and emotional exhaustion in teachers: Does the school context make a difference? *Applied Psychology*, 57(1), 127-151. doi:10.1111/j.1464-0597.2008.00358.x
- Knowles, M. S. (1984). *Andragogy in action: Applying modern principles of adult education*. San Francisco, CA: Jossey-Bass Publishers.
- Korthagen, F. A. J. (2004). In search of the essence of a good teacher: towards a more holistic approach in teacher education. *Teaching and Teacher Education*, 20, 77-97.
doi:10.1016/j.tate.2003.10.002
- Korthagen, F., & Vasalos, A. (2005). Levels of reflection: Core reflection as a means to enhance professional growth. *Teachers and Teaching: Theory and Practice*, 11(1), 47-71. doi:10.1080/1354060042000337093
- Kroth, M., & Cranton, P. (2014). *Stories of transformative learning*. Rotterdam, NL: Sense Publishers.

- Kuklick, C. R., Gearity, B. T., & Thompson, M. (2015). Reflective practice in a university-based coach education program. *International Sport Coaching Journal*, 2, 248-250. Retrieved from www.researchgate.net
- Lambert, N. M., Gwinn, M. A., Baumeister, R. F., Strachman, A., Washburn, I. J., Gable, S. L., & Fincham, F. D. (2013). A boost of positive affect: The perks of sharing positive experiences. *Journal of Social and Personal Relationships*, 30(1), 24-43. doi:10.1177/0265407512449400
- Lane, R.D., Quinlan, D.M., Schwarz, G. E., Walker, P. A., & Zeitlin, S. B. (1990). The levels of emotional awareness: A cognitive-development measure of emotion. *Journal of Personality Assessment*, 55(1), 124-134. Retrieved from <http://content.ebscohost.com.proxy1.library.jhu.edu/>
- Lasky, S. (2005). A sociocultural approach to understanding teacher identity, agency, professional vulnerability in a context of secondary school reform. *Teacher and Teacher Education*, 21(1), 899-916. doi:10.1016/j.tate.2005.06.003
- Leithwood, K., Menzies, T., Jantzi, D., & Leithwood, J. (1996). School restructuring, transformational leadership, and the amelioration of teacher burnout. *Anxiety, Stress, and Coping*, 9(3), 199-215. doi:10.1080/10615809608249402
- Leithwood, K., Steinbach, R., & Jantzi, D. (2002). Leadership and teachers' motivation to implement accountability policies. *Educational Administration*, 38, 94-119. doi:10.1177/001316X02381005
- Leithwood, K. (2006). *Teacher working conditions that matter: Evidence for change*. Toronto, ON: Elementary Teachers' Federation of Ontario. Retrieved from www.eric.ed.gov/?id=EJ771011

- Leithwood, K., Patten, S., & Jantzi, D. (2010). Testing a conception of how school leadership influences student learning. *Educational Administration Quarterly*, 46(5), 671-706. doi:10.1177/0013161X10377347
- Leithwood, K., & Azah, V. N. (2014). *Elementary principals' and vice-principals' workload study: Final Report*. (Unpublished manuscript). Toronto, ON: Ontario Ministry of Education. Retrieved from www.edu.gov.on.ca
- Leviton, L. C., & Lipsey, M. W. (2007). A big chapter about small theories: Theory as method: Small theories of treatments. *New Directions for Evaluation*, 114, 27- 62. doi:10.1002/ev.224
- Lipsey, M. W., & Hurley, S. M. (2009). Design sensitivity. In L. Bickman & D. J. Rog (Ed.), *The sage handbook of applied social research methods*, (pp. 44-76). Retrieved from www.researchgate.net/profile/Mark_Lipsey/publication/232571268
- Locke, E. A. (1970). Job satisfaction and job performance: A theoretical analysis. *Organizational Behavior and Human Performance*, 5(5), 484-500. doi:10.1016/0030-5073(70)90036-X
- Lortie, D. C. (1975). *Schoolteacher: A sociological study*. Chicago, IL: The University of Chicago Press.
- Lortie, D. C. (2002). *Endemic uncertainties: In Schoolteacher* (2 ed.). Chicago, IL: The University of Chicago Press.
- Lupart, J., & Webber, C. (2012). Canadian schools in transition: Moving from dual education systems to inclusive schools. *Exceptionality Education International*,

- 22(1), 8-37. Retrieved from
<http://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1116&context=eei>
- Luthans, F., Avey, J., Avolio, B., Norman, S. M., & Combs, G. (2006). Psychological capital: Toward a mirco-intervention. *Journal of Organizational Behavior*, 27(3), 387-393.
doi:10.1002/job.373
- Luthans, F., Avolio, B. J., Avey, J. B., & Norman, S. M. (2007). Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology*, 60(3), 541-572. doi:10.1111/j.1744-6570.2007.00083.x
- Luthans, F., Avolio, B. J., & Avey J. B. (2007). *Psychological capital (PsyCap) questionnaire (PCQ)*. Retrieved from www.mindgarden.com
- Luthans, F., Youssef, C. M., & Avolio, B. J., (2007). *Psychological capital: Developing the human competitive edge*. Oxford, UK: Oxford University Press.
- Luthans, F. Youssef, C. M., Sweetman, D. S. & Harms, P. D. (2013). Meeting the leadership challenge of employee well-being through relationship PsyCap and health PsyCap. *Journal of Leadership & Organizational Studies*, 20(1), 118-133.
doi:10.1177/1548051812465893
- Lyubomirsky, S., Tkach, C., DiMatteo, M. R. (2006). What are the differences between happiness and self-esteem. *Social Indicators Research*, 78(3), 363-404.
doi:10.1007/s11205-005-0213-y
- Markos, S. (2010). Employee engagement: The key to improving performance. *International Journal of Business and Management*, 5(12), 89-96.
doi:10.5539/ijbm.v5n12p89

- Maslow, A. (1954). *Motivation and personality* (3rd Ed.). New York, NY: Addison Wesley Longman.
- Masten, A. S., & Reed, M. G. (2002). Resilience in development. In C. R. Snyder and S. J. Lopez, *Oxford Handbook of Positive Psychology*, (pp. 74-88). Oxford, UK: Oxford University Press.
- Matsui, J. (2005). *The worklife attitude of Ontario public elementary teachers*. Toronto: Elementary Teachers' Federation of Ontario. Retrieved from www.bctf.ca
- Maylette, T., & Warner, P. (2014). *Magic: Five keys to unlock the power of employee engagement*. Austin, TX: Greenleaf Book Group.
- McCarthy, A. M., & Garavan, T. N. (1999). Developing self-awareness in the managerial career development process: The value of 360-degree feedback and MBTI. *Journal of European Industrial Training*, 23(9), 437-445.
doi:10.1108/03090599910302613
- McNaught, C., & Lam, P. (2010). Using Wordle as a supplementary research tool. *The Qualitative Report*, 15(3), 630-643. Retrieved from www.nsuworks.nova.edu/cgi/
- McNamara, E. (1998). *The theory and practice of eliciting pupil motivation: Motivational interviewing: A form of teacher's manual and guide for students, parents, psychologists, health visitors, and counselors*. Ainsdale Merseyside: Positive Behavior Management.
- Meijer, P. C., Korthagen, F. A. J., & Vasalos, A. (2009). Supporting presence in teacher education: The connection between the personal and professional aspects of teaching. *Teaching and Teacher Education*, 25, 297-308. doi:10.1016/j.tate.2008.09.013

- Merriam, S. B. (2001). Andragogy and self-directed learning: Pillars of adult learning theory. *New Directions for Adult & Continuing Education*, 89, 3-13.
doi:10.1002/ace.3
- Mezirow, J. (1981). A critical theory of adult learning and education. *Adult education quarterly*, 32(1), 3-24. Retrieved from
<http://files.eric.ed.gov/fulltext/ED384696.pdf#page=58>
- Mezirow, J. (1991). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco, CA: Jossey-Bass Publishers.
- Moir, E. (1990). Phases of first-year teaching. *California Department of Education (CDE)*. San Francisco, CA: California New Teacher Project.
- Myers, I. B., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998). *MBTI Manual: A guide to the development and use of the Myers-Briggs Type Indicator* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Nemec, M., & Roffey, S. (2005). Emotional literacy and the case for a whole-school approach to promote sustainable educational change. *Australian Association of Research in Education*. Retrieved from <http://www.aare.edu.au/index.php>
- Nesbit, P. L. (2012). The role of self-reflection, emotional management of feedback, and self-regulation processes in self-directed leadership development. *Human Resource Development Review*, 11(2), 203-226. doi:10.1177/1534484312439196
- Noddings, N. (2006). Educational leaders as caring teachers. *School Leadership and Management*, 26(4), 339-445. doi:10.1080/363600886848
- Oatley, K., & Jenkins, J. M. (1992). Human emotions: Function and dysfunction. *Annual Review of Psychology*, 43, 55-85. doi:10.0066-4308/92/0201-0055

- O'Leary, Z. (2014). *The essential guide to doing your research project* (2nd ed.). Thousand Oakes, CA: SAGE.
- Ontario Ministry of Education. (2010). *Ontario Leadership Strategy: Quick facts*. Toronto: Author.
- Oplatka, I., (2007). Managing emotions in teaching: Toward an understanding of emotion displays and caring on as non-prescribed role elements. *Teachers' College, 109*(6), 1374-1400. Retrieved from <https://eric.ed.gov/?id=EJ820463>
- Ozer, D.J., & Benet-Martínez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review Psychology, 57*, 401-21.
doi:10.1146/annurev.psych.57.102904.190127
- Palencik, J. T. (2007). William James and the Psychology of emotion: From 1884 to the present. *Transactions of the Charles S. Peirce Society, 43*(4). 769-786. Retrieved from <http://www.jstor.org.proxy1.library.jhu.edu/>
- Pennebaker, J. W. (1998). Writing about emotional experiences as a therapeutic process. *Psychological Science, 8*(3), 162-166. Retrieved from www.jstor.org/stable/40063169
- Pennebaker, J. W., & King, L. A. (1999). Linguistic styles: Language use as an individual difference. *Journal of Personality and Social Psychology, 77*(6), 1296-1312.
Retrieved from <https://www.ffri.hr/~ibrdar/komunikacija/seminari/Pennebaker>
- Pennebaker, J. W., Mehl, M. R., & Niederhoffer, K. G. (2003). Psychological aspects of natural language use: Our words, our selves. *Annual Review Psychology, 54*, 547-577. doi:10.1146/annurev.psych.54.101601.145041

- Pennebaker, J. W., & Evans, J. F. (2014). *Expressive writing - Words that heal: Using expressive writing to overcome traumas and emotional upheavals, resolve issues, improve health, and build resilience*. Enumclaw, WA: Idyll Arbor, Inc.
- Pennebaker, J. W., Chung, C. K., Frazee, J., Lavergne, G. M., & Beaver, D. I. (2014). When small words foretell academic success: The case of college admissions essays. *PloS One*, 9(12), 1-10. doi:10.1371/journal.pone.0115844
- Pennebaker, J. W., Booth, R.J., Boyd, R. L. & Francis, M. E. (2015). *Linguistic inquiry and word count - LIWC2015: Operator's Manual*. Austin, TX: LIWC Net.
- Pennebaker, J. W., Boyd, R. L., Jordan, K., & Blackburn, K. (2015). *The development and psychometric properties of LIWC2015*. Austin, TX: University of Texas at Austin. doi:10.15781/T29G6Z
- Pennebaker, J. W., & Smyth, J. M. (2016). *Opening up by writing it down: How expressive writing improves health and eases emotional pain*. (3rd ed.). New York, NY: Guilford Press.
- Piasecki, T. M., Hufford, M. R., Solhan, M., & Trull, T. J. (2007). Assessing clients in their natural environments with electronic diaries: Rationale, benefits, limitations and barriers. *Psychological Assessment*, 19(1), 25-43. doi:10.1037/1040-3590.19.1.25
- Pittenger, S. D. (1993). Measuring the MBTI...and coming up short. *Journal of Career Planning and Employment*, 54(1), 48-52. doi:10.3102/00346543063004467
- Pollock, K. (2014). *The changing nature of principals' work*. Toronto, ON: Ontario Principals' Council. Retrieved from www.edu.uwo.ca/faculty_profiles/cpels/pollock
- Pratt, D. D. (1993). Andragogy after twenty-five years. In S. Merriam (Ed.), *Adult learning*

- theory: An update* (pp. 15-25). San Francisco, CA: Jossey-Bass Publishers. Retrieved from <http://s3.amazonaws.com/academia.edu.documents>
- Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin*, 26(4), 419-435. doi:10.1177/0146167200266002
- Richardson, G., & Maltby, H. (1995). Reflection-on-practice: enhancing student learning. *Journal of Advanced Nursing*, 22(2), 235-242. doi:10.1046/j.1365-2648.1995.22020235
- Richards, K. C., Campenni, C. E., & Muse-Burke, J. L. (2010). Self-care and well-being in mental health professionals: The mediating effects of self-awareness and mindfulness. *Journal of Mental Health Counseling*, 32(3), 247-264. Retrieved from www.biomedsearch.com/article/Self-care-well-being-in/233291361.html
- Robins, G., & Bolder, J. (2003). Relational discrepancy theory: The implications of self-discrepancy theory for dyadic relationships and for the emergence of social structure. *Personality and Social Psychology Review*, 7(1), 56-74. doi:10.1207/S15327957PSPR0701_4
- Rodgers, C. R., & Raider-Roth, M. B. (2006). Presence in teaching. *Teachers and Teaching: Theory and Practice*, 12(3), 265-287. doi:10.1080/134506005467548
- Roffey, S. (2008). Emotional literacy and the ecology of school well-being. *Educational & Child Psychology*, 25(2), 29-39. Retrieved from www.sueroffey.com/wp-content/uploads/2014/02/2008-EL-Ecology-Wellbeing.pdf
- Rolls, E. T. (2002). A theory of emotion, its function, and its adaptive value. In R. Trappel, P. Petta, & S. Payr (Eds.), *Emotions in humans and artifacts* (pp.11-34). New York, NY: MIT.

- Rossi, P. H., Lipsey, M. W., & Freeman, H. E. (2004). *Evaluation: A systematic approach* (7th ed.). Thousand Oaks, CA: SAGE.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. doi:10.1037/0003-066X.55.1.68
- Ryff, C. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069-1081. Retrieved from <http://coursedelivery.org/write/wp-content/uploads/2015/02/2-Happiness-is-everything-or-is-it.pdf>
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. Thousand Oaks, CA: SAGE Publications.
- Schaufeli, W. B., Bakker, A. B., & Salanova, J. (2006). The measurement of work engagement with a short questionnaire. *Educational and Psychological Measurement*, 66(4), 701-716. doi:10.1177/0013164405282471
- Scherer, K. R. (2005). What are emotions? And how can they be measured? *Social Science Information*, 44(4), 695-721. doi:10.1177/0539018405058216
- Schmidt, M., & Datnow, A. (2005). Teachers' sense-making about comprehensive school reform: The influence of emotions. *Teaching and Teaching Education*, 21, 949-965. doi:10.1016/j.tate.2005.06.006
- Schön, D. A. (1987). *Educating the reflective practitioner: Toward a new design for teaching and learning in the professions*. San Francisco, CA: Josey-Bass.
- Schutt, R. K. (2015). *Investigating the social world: The process and practice of research* (8th ed). Thousand Oaks, CA: Sage Publications.

- Schutte, N. S., Malouff, J.M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence, *Personlity and Individual Differences*, 25, 167-177.
doi:10.1016/S0191-8869(98)00001-4
- Scott, B. A., Colquitt, J. A., Paddock, L. E., & Judge, T. A. (2010). A daily investigation of the role of manager empathy on employee well-being. *Organizational Behavior and Human Decision Processes*, 113, 127-140. doi:10.1016/j.obhp.2010.08.001
- Seashore Louis, K., Dretzke, B., & Wahlstrom, K. (2010). How does leadership affect student achievement? Results from a national US survey. *School Effectiveness and School Improvement; An International Journal of Research, Policy, and Practice*, 21(3), 315-336. doi:10.1080/09243453.2010.486586
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. New York, NY: Houghton Mifflin Co.
- Shamir, B., & Eilam, G. (2005). "What's your story?": A life-story approach to authentic leadership development. *The Leadership Quarterly*, 16, 395-414.
doi:10.1016/j.leadqua.2005.03.005
- Smith, W. K., Behsarov, M. L., Wessels, A. K., & Chertok, M. (2012). A paradoxical leadership model for social entrepreneurs: Challenges, leadership skills, and pedagogical tools for managing social and commercial demands. *Academy of Management Learning & Education*, 11(3), 463-478. doi:10.5485/amle.2011.002
- Smyth, J. M. (1998). Written emotional expression: Effect sizes, outcome types, and moderating variables. *Journal of Consulting and Clinical Psychology*, 66(1), 174-184. Retrieved from <http://psych415.class.uic.edu/>

- Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. New York, NY: The Free Press.
- Snyder, C. R., Irving, L. M., & Anderson, J. R. (1991). In C. R. Snyder and D. R. Forsyth (Eds.) *Hope and health. Handbook of social and clinical psychology: The health perspective*, pp. 285-305. Elmsford, NY: Pergamon Press. Retrieved from www.scholarship.richmond.edu
- Soriano, F. I. (2013). *Conducting needs assessments: A multidisciplinary approach* (2nd ed). Los Angeles, CA: Sage Publications.
- Stajkovic, A. D., & Luthans, F. (1998). Self-efficacy and work-related performance: A meta-analysis. *Psychological Bulletin*, 124(2), 240-261. Retrieved from <http://www.researchgate.net>
- Stone, D. N., Deci, E. L., & Ryan, R. M. (2009). Beyond talk: creating autonomous motivation through self-determination theory. *Journal of General Management*, 34(3), 75-91. Retrieved from <http://eds.b.ebscohost.com.proxy1.library.jhu.edu/ehost/>
- Sutton, R. E., & Wheatley, K. F. (2003). Teachers' emotions and teaching: A review of the literature and directions for future research. *Educational Psychology Review*, 15(4), 327-358. doi:1040.726X/03/1200-0327/0
- Suveg, C., Payne, M., Thomassin, K., & Jacob, M. L. (2010). Electronic diaries: A feasible method of assessing emotional experiences in youth. *Journal of Psychopathology and Behavioral Assessment*, 32(1), 57-67. doi:10.1007/s10862-009-9162-0
- Thagard, P. & Aubie, B. (2008). Emotional consciousness: A neural model of how cognitive appraisal and somatic perception interact to produce qualitative

experience. *Consciousness and Cognition*, 17(3), 811-834.

doi:10.1016/j.concog.2007.05.014

Tonkin, T. H. (2013). Authentic versus transformational leadership: Assessing their

effectiveness on organizational citizen behavior of followers. *International Journal of*

Business and Public Administration, 10,(1) 40-61. Retrieved from

<http://eds.b.ebscohost.com.proxy1.library.jhu.edu>

Torgersen, C. J., Torgerson, D. J., & Taylor, C. A. (2010). Randomized controlled trials. In J.

S. Wholey, H. P. Hatry, and K.E. Newcomer (Eds.), *Handbook of practical program*

evaluation. (4th ed., pp. 197-224). Hoboken, NJ: Jossey-Bass.

Tschannen-Moran, M. (2014). *Trust matters: Leadership for successful schools*. San

Francisco, CA: Jossey-Bass.

Tschannen-Moran, M., & Gareis, C. R. (2015). Principals, trust, and cultivating vibrant

schools. *Societies*, 5, 256-276. doi:10.2290/soc5020256

Twenge, J. M., Ciarocco, N. J., Baumeister, R. F., DeWall, N. C., & Bartels, M. J. (2007).

Social exclusion decreases pro-social behavior. *Journal of Personality and Social*

Psychology, 92(1), 56-66. doi:10.1037/0022-3514.92.1.56

Villieux, A., Sovet, L., Jung, S., & Guilbert, L. (2016). Psychological flourishing:

Validation of the French version of the flourishing scale and exploration of its

relationships with personality traits. *Personality and Individual Differences*, 88, 1-

5. doi:10.1016/j.paid.2015.08.027

Wade, T. J., Pevalin, D. J., & Brannigan, A. (1999). The clustering of severe behaviour,

health and educational deficits in Canadian children: Preliminary evidence for the

National Longitudinal Survey of Children and Youth. *Canadian Journal of Public*

- Health*, 90(4), 253-259. Retrieved from
www.search.proquest.com.proxy1.library.jhu.edu
- Walumbwa, F. O., Avolio, B. J., Gardner, W.L., Wernsing, T. S., & Petterson, S. J.,
(2008). Authentic leadership: Development and validation of a theory-based
measure. *Journal of Management*, 34(1), 89-126. Retrieved from
http://digitalcommons.unl.edu/managementfactpub
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief
measures of positive and negative affect: The PANAS Scales. *Journal of
Personality and Social Psychology*, 54(6), 1063-1070. doi: 10.1037/0022-
3514.54.6.1063
- Weinstein, N., Brown, K. W., & Ryan, R. M. (2009). A multi-method examination of the
effects of mindfulness on stress attribution, coping, and emotional well-being.
Journal of Research in Personality, 43(3), 374-385. doi:10.1016/j.jrp.2008.12.008
- Wiggins, G. P., & McTighe, J. (2005). *Understanding by design* (2nd ed). Upper Saddle
River, NJ: Prentice-Hall.
- Zirkel, S., Garcia, J. A., & Murphy, M. C. (2015). Experience-Sampling research
methods and their potential for education research. *Education Researcher*, 44(1),
7-16. doi: 10.3102/0013189X14566879

Appendices

Appendix A

Letter of Consent

Consent to Participate in a Research Study

PURPOSE of Research Study

The purpose of this leadership professional development project is to explore whether self-knowledge acquired through the Lumina Spark© inventory and one-day five hour workshop or self-reflective practices through expressive writing over the course of three weeks influence participants' self-awareness, psychological well-being, and psychological capital including hope, optimism, efficacy, and resilience. We anticipate that approximately 24 elementary administrators will participate in this study.

PROCEDURES

If you choose to participate in this four-week study, you will be randomly assigned an identification number and placed in one of two groups: a) LuminaSpark© inventory and workshop, or b) the expressive writing experience. Each participant will complete an online questionnaire before the research project begins.

If you are in the LuminaSpark© group, you will be first asked to independently complete the online Lumina Spark© psychometric inventory. On Saturday, November 19th (9:00 AM - 3:00 PM with lunch included), there will be a five-hour workshop facilitated by a certified Lumina Learning© practitioner (Don Marshall) at which time you will receive your personal 65-page Lumina Spark© Portrait generated from your inventory responses: All at no personal cost. If you are in the expressive writing group, you will be asked through six email prompts over the course of three weeks to complete 15-20 minutes of expressive writing online twice per workweek within your own schedule (totalling 120 minutes). Expressive writing participants will also have the option to complete the LuminaSpark© inventory and participate in a workshop after the close of the research project.

At the end of the four-week project, on Thursday, December 8th, all participants will attend a closing session from 4:30-6:30 PM and complete the original questionnaire a second time. Focus group interviews will also be held during this two-hour session. If a participant is unable to attend the closing session, they will be invited to complete the questionnaire and focus group questions electronically within one week of the closing session. In spring, all participants will be invited through email to a presentation of the research findings.

RISKS/DISCOMFORTS

The risks associated with participation in this study are no greater than those encountered in daily life [or during the performance of routine physical or psychological examinations or tests].

BENEFITS

We believe that there will be benefits to those participating in this study. First of all, if you are participating in the Lumina© group, you will receive individualized personal feedback from the psychometric inventory and workshop. If you are participating in the expressive writing group, you will develop self-reflection skills. Both treatments provide opportunities to increase self-knowledge, to discover strategies that may enhance your professional well-being, and to build community among administrators. These benefits could also influence personal relationships. The data collected will contribute to the general knowledge base of leadership professional development that focuses on administrators' self-awareness and wellbeing.

VOLUNTARY PARTICIPATION AND RIGHT TO WITHDRAW

Your participation in this study is entirely voluntary: You choose whether to participate. If you decide not to participate, there are no penalties. If you choose to participate in the study, you can stop your participation at any time, without any penalty or loss of benefits. If you want to withdraw from the study, please contact the investigator, Lisa Devall-Martin at devallmartin.jhu.project@gmail.com. If we learn any new information during the study that could affect whether you want to continue participating, we will discuss this information with you.

CONFIDENTIALITY

Any research records that identify you will be kept confidential to the extent possible by law. The records from your participation may be reviewed by people responsible for making sure that research is done properly, including members of the Johns Hopkins University Homewood Institutional Review Board, and officials from government agencies, such as the National Institutes of Health and the Office for Human Research Protections. (All of these people are required to keep your identity confidential.)

Otherwise, records that identify you will be available only to people working on the study, unless you give permission for other people to see the records.

Researchers will be able to identify that you have participated in the research but will not, however, be able to directly link your questionnaire responses. Each participant's manila envelope will have a number on the outside. This number will be the participant's identification number for the duration of the study. Pre- and post-questionnaires will be identifiable only by the participant's number. Lumina envelopes will have even numbers starting at 2016-02 and expressive writing participants' envelopes will be labelled with odd numbers starting at 2016-01. Participants will be asked to identify themselves during the focus group sessions by their assigned number. All results from the data collection will be stored in a locked filing cabinet for the required three-year archiving. When results from the study are published, all participant identifiable information will be excluded.

COMPENSATION

You will not receive any payment or other compensation for participating in this study.

IF YOU HAVE QUESTIONS OR CONCERNS:

You can ask questions about this research study now or at any time during the study by calling Lisa Devall-Martin at 519-502-9753 or emailing her at devallmartin.jhu.project@gmail.com. If you have questions about your rights as a research participant or feel that you have not been treated fairly, please call the Homewood Institutional Review Board at Johns Hopkins University at (410) 516-6580.

WHAT YOUR ACCEPTANCE MEANS:

Your acceptance means that you understand the information in this consent form. Your consent also means that you agree to participate in the study. Please click "next" to proceed to accept this opportunity.

.Johns Hopkins University – School of Education
Baltimore, Maryland
410-516-8000
Att: Dr. Carey Borkoski

Electronic Consent:

I have read and accept the opportunity to participate in this exploratory study. By clicking on 'yes' on this consent form, you have not waived any legal rights you otherwise would have as a participant in a research study. If you do not wish to participate, simply log out of the survey. Thank you.

I agree to participate in the study.

Yes

No

Appendix B

Levels of Emotional Awareness

(LEAS-A; Lane, Quinlan, Schwarz, Walker, & Zeitlin, 1990)

Subject#: _____

Instructions

Please describe what you would feel in the following situations. The only requirement is that you use the word “feel” in your answers. You may make your answers as brief or as long as necessary to express how you would feel. In each situation there is another person mentioned. Please indicate how you think that other person would feel as well.

1. A neighbor asks you to repair a piece of furniture. As the neighbor looks on, you begin hammering the nail but then miss the nail and hit your finger. How would you feel? How would the neighbor feel?
2. A loved one gives you a back rub after you return from a hard day’s work. How would you feel? How would your partner feel?
3. As you drive over a suspension bridge you see a person standing on the other side of the guardrail, looking down at the water. How would you feel? How would the person feel?
4. Your boss tells you that your work has been unacceptable and needs to be improved. How would you feel? How would your boss feel?
5. You are standing in line at the bank. The person in front of you steps up to the window and begins a very complicated transaction. How would you feel? How would the person in front of you feel?

6. You have been working hard on a project for several months. Several days after submitting it, your boss stops by to tell you that your work was excellent. How would you feel? How would your boss feel?
7. Your dentist has told you that you have several cavities and schedules you for a return visit. How would you feel? How would the dentist feel?
8. Your doctor told you to avoid fatty foods. A new colleague at work calls to say that she/he is going out for pizza and invites you to go along. How would you feel? How would your colleague feel?
9. You and a friend agree to invest money together to begin a new business venture. Several days later you call the friend back only to learn that she/he changed her/his mind. How would you feel? How would your friend feel?
10. You fall in love with someone who is both attractive and intelligent. Although this person is not well off financially, this doesn't matter to you -- your income is adequate. When you begin to discuss marriage, you learn that she/he is actually from an extremely wealthy family. She/he did not want that known for fear that people would only be interested in her/him for her/his money. How would you feel? How would she/he feel?

Appendix C

Engaged Teachers Scale

(ETS; Klassen, Yerdeln, & Durksen, 2013)

The Engaged Teachers Scale (ETS) is a validated four factor 16-item measure of teacher engagement in determining professional wellbeing (Klassen, Yerdelen, & Durksen, 2013).

Scoring

Using the following Likert scale:

Never	Almost Never	Rarely	Sometimes	Very Often	Always
1	2	3	4	5	6
Never	A few times/year	Once/month	A few times/month	Once/week	Every day

Instructions

The following 16 statements are about your perceptions of your work as a teacher in the district. Please read each statement carefully and decide if you ever feel this way about your work. If you have never had this feeling, click on zero. If you have had this feeling, indicate how often you felt it by clicking on the number from 1 to 5 that best describes how frequently you felt that way.

Questions

Item	Content	Factor
10	I love teaching.	EE
2	I am excited about teaching.	EE
5	I feel happy while I am teaching.	EE

13	I find teaching fun.	EE
9	At school, I value the relationships I build with my colleagues.	SEC
7	At school, I am committed to helping my colleagues.	SEC
12	At school, I care about the problems of my colleagues.	SEC
1	At school, I connect well with my colleagues.	SEC
11	While teaching, I pay a lot of attention to my work.	CE
8	While teaching, I really ‘throw’ myself into my work.	CE
15	While teaching, I work with intensity.	CE
4	I try my hardest to perform well while teaching.	CE
14	In class, I care about the problems of my students.	SES
16	In class, I am empathetic towards my students.	SES
6	In class, I am aware of my students’ feelings.	SES
3	In class, I show warmth to my students.	SES

Note. EE = emotional engagement, SEC = social engagement: colleagues, CE = cognitive engagement, SES = social engagement: students.

(Klassen, Yerdelen, & Durksen, 2013, p. 39).

Demographic Information (optional)

Gender (select one)

Female Male

Age (select one)

20-32 33-49 50-65

Tenure with school board (select one)

LTO 0-1 years 2-5 years 6-10 years 10+ years

Content Expertise (select appropriate ones)

Language Arts Mathematics Science French Arts

Social Studies Physical Education

Appendix D

The Positive and Negative Affect Schedule

(PANAS: Watson, Clark, & Tellegan, 1988)

Using the P.I.E.L. Application, each participant completed the PANAS within 10 minutes of when the alarm sounds.

Scoring – Using the Lickert scale below

Never	Very slightly	A little	Moderately	Quite a bit	Extremely
1	2	3	4	5	6

Instructions

Read each item and then press the button with the number from the scale below. Indicate to what extent you feel this way right now, that is, at this present moment OR indicate the extent you have felt this way since your last scheduled PANAS.

- | | |
|-----------------|----------------|
| 1. Interested | 11. Irritable |
| 2. Distressed | 12. Alert |
| 3. Excited | 13. Ashamed |
| 4. Upset | 14. Inspired |
| 5. Strong | 15. Nervous |
| 6. Guilty | 16. Determined |
| 7. Scared | 17. Attentive |
| 8. Hostile | 18. Jittery |
| 9. Enthusiastic | 19. Active |
| 10. Proud | 20. Afraid |

Scoring Instructions

Positive Affect Score: Add the scores on items 1, 3, 5, 9, 10, 12, 14, 16, 17, and 19.

Scores can range from 10 - 60, with higher scores representing higher levels of positive effect. Negative Affect Score: Add the scores on items 2, 4, 6, 7, 8, 11, 13, 15, 18 and 20.

Scores can range from 10 – 60, with lower scores representing lower levels of negative affect.

Appendix E

SCHOOL ADMINISTRATORS' INSIGHT AND SELF-REFLECTION: AN EXPLORATION OF THE EFFECTS OF EXPRESSIVE WRITING AND LUMINASPAK© INVENTORY ON SELF-AWARENESS – L. DEVAL-MARTIN (HIRB00004818)

Lumina Post-workshop Survey

Thank you for attending the Lumina Spark© workshop on Saturday, November 19th at 4 Willow Street in Waterloo, Ontario. The time you invested in participating in the day and your experience at the workshop is important to this project. Please take 5-10 minutes and complete this post-workshop survey.

Q2 What is your ID number?

Q3 Rate your overall satisfaction with the Lumina Spark© workshop.

- ☐ Extremely satisfied (1)
- ☐ Moderately satisfied (2)
- ☐ Slightly satisfied (3)
- ☐ Neither satisfied nor dissatisfied (4)
- ☐ Slightly dissatisfied (5)
- ☐ Moderately dissatisfied (6)
- ☐ Extremely dissatisfied (7)

Q4 Briefly explain (optional).

Q5 What components of the workshop did you feel were most significant to your learning experience? Select as many as apply.

- ☐ Icebreaker: Self-awareness quotes (1)
- ☐ Four Colours Card Exercise (Buy and Sell) (2)
- ☐ Lumina model overview (3)
- ☐ Inner Spark© reading and circling (4)
- ☐ Three personae ranking worksheet (5)
- ☐ Affirmations and suppressions (mat activity) (6)
- ☐ Embracing paradox: Overextended self-discovery (7)
- ☐ Journey to composure (8)
- ☐ Communication: Speed reading email examples (9)
- ☐ GROWS goal setting (10)

Q6 Other component/activity:

Q7 Please indicate your level of agreement with the following statements:

	Strongly agree (1)	Somewhat agree (2)	Neither agree nor disagree (3)	Somewhat disagree (4)	Strongly disagree (5)
The workshop helped build my capacity to respond to the needs of my staff. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The workshop increased my understanding of myself. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The workshop increased my understanding about the key issues related to working with staff, students, and parents. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend LuminaSpark© to other administrators. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8 Did the facilitator...

	Extremely well (1)	Very well (2)	Moderately well (3)	Slightly well (4)	Not well at all (5)
Clearly explain the objectives of the workshop? (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustain interest and participation of the group? (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Have the workshop organized? (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clarify any questions from the participants? (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q9 Overall, how would you rate the facilitator of this workshop?

- ☐ Extremely effective (1)
- ☐ Very effective (2)
- ☐ Moderately effective (3)
- ☐ Slightly effective (4)
- ☐ Not effective at all (5)

Q10 Please indicate your level of satisfaction with the following...

	Extremely satisfied (1)	Somewhat satisfied (2)	Neither satisfied nor dissatisfied (3)	Somewhat dissatisfied (4)	Extremely dissatisfied (5)
Venue - room environment (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Food/beverages (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Location (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Registration/inventory process (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 Please indicate your dominant "Everyday" colour below (This will be linked to your ID number only.)

Q12 Please indicate your second "Everyday" colour below (This will be linked to your ID number only.)

Q13 Please share any additional comments: (You may want to include your GROWS goal, but it is optional.)

Thank you for completing the post-workshop survey! Please mark your calendars for the focus group discussion session on Thursday, December 8th from 3:30 to 5:00 PM (notice the change of time to help accommodate our busy schedules) in the same location as the workshop.

Appendix F

Pre- and post-questionnaire

SCHOOL ADMINISTRATORS' INSIGHT AND SELF-REFLECTION: AN EXPLORATION OF THE EFFECTS OF EXPRESSIVE WRITING AND LUMINASPARK© INVENTORY ON SELF-AWARENESS – L. DEVAL-MARTIN (HIRB00004818)

Instruments for Data Collection Pre- and Post Questionnaire

Participant consent for survey embedded in questionnaire when participant clicks 'agree'.

Participants responded using the following Likert scale:

- ☐ Using Strongly Disagree (1)
- ☐ Disagree (2)
- ☐ Somewhat Disagree (3)
- ☐ Somewhat Agree (4)
- ☐ Agree (5)
- ☐ Strongly Agree (6)

Psychological Capital (PsyCap) Questionnaire (PCQ)

Self-rater version (Luthans, Avolio, & Avey, 2007)

Q1 I feel confident analyzing a long-term problem to find a solution.

Q2 I feel confident in representing my work area in meeting with management.

Q3 I feel confident contributing to discussions about the organization's strategy.

Q4 I feel confident helping to set target/goals in my work area.

Q5 I feel confident contacting people outside the organization (e.g. parents, services) to discuss problems.

Q6 I feel confident presenting information to a group of colleagues.

Q7 If I should find myself in a jam at work, I could think of many ways to get out of it.

Q8 At the present time, I am energetically pursuing my work goals.

Q9 There are lots of ways around any problem.

Q10 Right now I see myself as being pretty successful at work.

Q11 I can think of many ways to reach my current work goals.

Q12 At this time, I am meeting the work goals that I have set for myself.

Q13 When I have a setback at work, I have trouble recovering from it, moving on.

Q14 I usually manage difficulties one way or another at work.

Q15 I can be “on my own”, so to speak, at work if I have to.

Q16 I usually take stressful things at work in stride.

Q17 I can get through difficult times at work because I’ve experienced difficulty before.

Q18 I feel I can handle many things at a time at this job.

Q19 When things are uncertain for me at work, I usually expect the best.

Q20 If something can go wrong for me work-wise, it will.

Q21 I always look on the bright side of things regarding my job.

Q22 I’m optimistic about what will happen to me in the future as it pertains to work.

Q23 In this job, things never work out the way I want them to.

Q24 I approach this job as if “every cloud has a silver lining”.

Self-reflection and Insight Scale (Grant, Franklin, & Langford, 2002)

Engagement in self-reflection

Q25 I don’t often think about my thoughts.

Q26 I rarely spend time in self-reflection. (R)

Q27 I frequently examine my feelings.

Q28 I don’t really think about why I behave in the way that I do. (R)

Q29 I frequently take the time to reflect on my thoughts.

Q30 I often think about the way I feel about things.

Need for self-reflection

Q31 I am not really interested in analyzing my behavior. (R)

Q32 It is important for me to evaluate the things that I do.

Q33 I am very interested in examining what I think about.

Q34 It is important to me to try to understand what my feelings mean.

Q53 I have a definite need to understand the way that my mind works.

Q36 It is important to me to be able to understand how my thoughts arise.

Insight

Q37 I am usually aware of my thoughts.

Q38 I'm often confused about the way that I really feel about things. (R)

Q39 I usually have a very clear idea about why I've behaved in a certain way.

Q40 I'm often aware that I'm having a feeling, but I often don't quite know what it is.
(R)

Q41 My behavior often puzzles me. (R)

Q42 Thinking about my thoughts makes me more confused. (R)

Q43 Often I find it difficult to make sense of the way I feel about things. (R)

Q44 I usually know why I feel the way I do.

Psychological Well-being (42-item) Scale (Ryff, 1989)

(A=autonomy, E=environmental mastery, G=personal growth, R=relations with others, P=purpose in life, and S=self-acceptance)

Q45 I am not afraid to voice my opinions even when they are in opposition to the opinions of other people.

Q46 My decisions are not usually influenced by what everyone else is doing.

Q47 I tend to worry about what other people think of me. (R)

Q48 I have confidence in my opinions even if they are contrary to the general consensus.

Q49 I often change my mind about decisions if my family and friends disagree with me. (R)

Q50 Being happy with myself is more important than having others approve of me.

Q51 It is difficult for me to voice my own opinions on controversial matters. (R)

Q52 I do not fit very well with the people and the community around me. (R)

Q53 I am quite good at managing the many responsibilities of my daily life.

Q54 I often feel overwhelmed by my responsibilities. (R)

Q55 I generally do a good job at taking care of my personal finances and affairs.

Q56 I am good at juggling my time so that I can fit everything in that needs to be done.

Q57 I have difficulty arranging my life in a way that is satisfying to me. (R)

Q58 I have been able to build a home and a lifestyle for myself that is much to my liking.

Q59 I am not interested in activities that will expand my horizons. (R)

Q60 I don't want to try new ways of doing things – my life is fine the way it is. (R)

Q61 I think it is important to have new experiences that challenge how you think about the world.

Q62 When I think about it, I haven't really improved much as a person over the years. (R)

Q63 I have a sense that I have developed a lot as a person over time.

Q64 I do not enjoy being in new situations that require me to change my old familiar way of doing things. (R)

Q65 There is a truth in the saying that you can't teach an old dog new tricks. (R)

Q66 Most people see me as loving and affectionate.

Q67 I often feel lonely because I have few close friends with whom to share my concerns. (R)

Q68 I enjoy personal and mutual conversations with family members or friends.

Q69 I don't have many people who want to listen when I need to talk. (R)

Q70 It seems to me that most people have more friends than I do. (R)

Q71 People would describe me as a giving person, willing to share my time with others.

Q72 I know that I can trust my friends and they know that they can trust me.

Q73 I tend to focus on the present because the future nearly always brings me problems. (R)

Q74 My daily activities often seem trivial and unimportant to me. (R)

Q75 I don't have a good sense of what it is I am trying to accomplish in life. (R)

Q76 I used to set goals for myself, but that now seems like a waste of time. (R)

Q77 I am an active person in carrying out the plans I have for myself.

Q78 I sometimes feel I have done all there is to do in life. (R)

Q79 I enjoy making plans for the future and working to make them a reality.

Q80 I feel that many of the people I know have got more out of life than I have. (R)

Q81 I have made some mistakes in the past, but feel that all in all everything has worked out for the best.

Q82 In many ways, I feel disappointed about my achievements in life. (R)

Q83 My attitude about myself is probably not as positive as most people feel about themselves. (R)

Q84 The past had its ups and downs, but in general I wouldn't want to change it.

Q85 When I compare myself with friends and acquaintances, it makes me feel good about who I am.

Q86 In general, I feel confident and positive about myself.

Appendix G

SCHOOL ADMINISTRATORS' INSIGHT AND SELF-REFLECTION: AN EXPLORATION OF THE EFFECTS OF EXPRESSIVE WRITING AND LUMINASPARK© INVENTORY ON SELF-AWARENESS – L. DEVAL-MARTIN (HIRB00004818)

Focus Group Interview Guide

Research Plan:

The goal of the focus group aligns with King's (2009) evolving research in transformative learning. As with children, important shifts and changes occur when adults learn new things. These interview questions are designed to better document the powerful role that context plays in adult learning and to gather specific information as to what stimulated and contributed to the learning within the intervention experience. This is semi-structured and, when used as a guide, will provide the opportunity for follow-up based on responses.

Focus Group Questions

1. Since you have been participating in this project, do you believe that you have experienced a change in your perspective about your values, beliefs, or expectations of yourself? If yes, briefly describe this change in perspective.
2. Thinking about your experience in the Lumina Spark© session or the reflective writing sessions, please note which items describe the change you may have experienced (distribute checklist to group members):
 - I had an experience that caused me to question the way I usually act.
 - I had an experience that caused me to question my ideas about social roles. (E.g. What an administrator should do or how a mother or father should act.)
 - As I questioned my ideas, I realized I no longer agreed with my previous beliefs or role expectations (i.e. of role of a leader...)
 - Or instead, as I questioned my ideas, I realized that I still agreed with my beliefs or role expectations (i.e. of role of a leader...)
 - I realized that other people also questioned their beliefs.
 - I thought about acting in a different way from my usual beliefs and roles.
 - I felt uncomfortable with traditional social expectations.
 - I tried out new roles so that I would become more comfortable or confident in them.
 - I tried to figure out a way to adopt these new ways of acting.
 - I gathered the information I needed to adopt these new ways of acting.
 - I began to thinking about the reactions and feedback from my new behavior.
 - I took action and adopted these new ways of acting.
 - I do not identify with any of the statements above.

3. Thinking back to when you first realized your views or perspective had changed, what did your participation in the project have to do with it?

4. Which of the following influenced this change? (Check all that apply.)
 - a. Was it a *person* who influenced the change? Yes No
 If “Yes”, was it....
 - i. Another participant’s support
 - ii. A colleague’s support
 - iii. A challenge from the instructor
 - iv. Other: _____
 - b. Was it a *component* of the experience? Yes No
 If “Yes”, what was it....
 - i. Writing about your concerns/feelings.
 - ii. Format of the experience (e.g. workshop)
 - iii. Deep, concentrated thought
 - iv. Verbally discussing your concerns
 - v. Lumina Portrait©
 - vi. Personal reflection
 - vii. Other: _____
 - c. Or, was it a significant *change in your life* that influenced the change? Yes No
 If “Yes”, what was it....
 - i. Marriage
 - ii. Moving
 - iii. Divorce/separation
 - iv. Addition of a child
 - v. Death of a loved one
 - vi. Other: _____
 Perhaps it was something else that influenced the change. If so, please describe it:

5. Describe how any of the above experiences influenced the change.

6. Thinking back to when you first realized that your view/perspective had changed:
 - a. When did you first realize this change had happened? Was it while it was happening, mid-change, or once it had entirely happened (retrospective)?
 - b. What made you aware that this change had happened?
 - c. What did your being in the project have to do with it?
 - d. What will you do differently in your leadership because of this change?
 - e. How did you feel about the change?

7. Do you have any additional comments as to how your perspective of your self has changed?

Thank you for your participation in this project.

Biography

Lisa Devall-Martin was born and raised in Toronto, Ontario, Canada. Her post-secondary studies took her to the University of Western Ontario, London, Ontario, where she won the academic gold medal. She completed her Master's degree at McGill University, Montréal, Québec, and then went to Charles Sturt, Australia, where she completed her Bachelor's of Education degree with High Distinction. She is a visionary leader with a strong entrepreneurial spirit that has guided her through many interesting professional paths including award winning university instruction, successful non-profit directorship, and the creation and launching of the Women's Ministries Institute (www.womensministriesinstitute.com) with the vision to encourage and equip women in their spiritual journey for effective leadership. Her career choice in public education fuels her deep desire to learn, positively contribute, and make a difference by developing, resourcing, and caring for teachers as they optimize student achievement and well-being; believing that 'engaging minds, transforms lives'. Presently, Lisa is proud to be a principal with the Waterloo Region District School Board (WRDSB), and she sits on the WRDSB Leadership Steering Committee and the Ontario Ministry of Education (OME) mandated Administrators' Mentorship Program (AMP).